A Report on

The USAID-Funded Colombo Plan Staff College CorPlan Project

Submitted to

COLOMBO PLAN STAFF COLLEGE FOR TECHNICIAN EDUCATION

and

U.S. ASSISTANCE FOR INTERNATIONAL DEVELOPMENT

by

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and

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ACKNOWLEDGMENT

This study would not have been possible without the help and admirable goodwill of others.

Philip Gielcyck and the Associated Resources for Management and Development (ARMDEV) wish to thank the following:

USAID for providing the funding for this study;

The CorPlan Team of the Colombo Plan Staff College for Technician Education (CPSC) namely Dr. C. K. Basu, Dr. Iluminada Espino, Dr. Romulita Alto; and, other staff interviewed for their guidance, encouragement and collegiality;

The CPSC Liaison Officers, the ministry representatives and colleagues in Thailand, Korea, Nepal, Pakistan, Bangladesh and Papua New Guinea for meticulously arranging the country visits and for their inspiring goodwill;

All the respondents (TVET Directorate Officers, CPSC Alumni, technical school graduates, private business and industry Executive Directors) who shared their time, their opinions and their hospitality;

Romulita Alto, Arturo Aportadera, Iluminada Espino, Cecile Motus, Gigi Tolentino and Takashi Uematsu for doing the research, travelling and report-writing;

The ARMDEV Encoders especially Rhea Cruz for her patience and hard work;

And other individuals who deserve to be mentioned but preferred to maintain their anonymity.

Special thanks go to Dr. Espino and Dr. Alto for their invaluable information, advice and most charitable sharing of their time.

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Definition of Terms

College-Based Course	course conducted by CPSC at its facilities in Manila, Philippines
Donor	refer mainly to international donor organizations like USAID, AIDAB, CIDA, ADB, ILO, UNDP and others
Goal	broad statement of a desired future condition based on what the organization wants
In-Country Course	course organized at the request of a Member Country; jointly designed and conducted by College faculty and country TVET experts; held at facilities in the requesting country
Integrated Action Plan	descriptions of specific actions required to accomplish the objectives which include accountability and time perspective
Member Country	member country of the Colombo Plan Council which participates in governance and contributes financial support to CPSC; and, is eligible to receive CPSC assistance and services
Mission	reason why an organization exists
Objective	statement of specific results which are measurable either qualitatively or quantitatively
Operational plan	a plan which focuses on supporting strategies with a time frame of 1-2 years
Organizational value	a belief or principle which serves as basis for behavior and decision-making in an organization
Policy-makers	Officials who are responsible for top level policy-making either in the TVET Directorates or at CPSC
Respondent	can be an individual person or representative country chosen for this study

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Strategy	a process of determining the mission, goals, objectives and integrated action plans
Strategic plan	a plan which focuses on future vision with a 3-5 years time frame
Tactical plan	a plan which focuses on weekly execution with a 1 year time frame
Vision	a description of the desired future state that communicates a common direction and facilitates alignment of individual and organizational efforts.

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EXECUTIVE SUMMARY

The Colombo Plan Staff College for Technician Education (CPSC) enjoys a generally positive image as a regional resource for technical and vocational training (TVET) in the Colombo Plan member countries. To keep the College responsive to the changing technical/vocational trends and needs of member countries, it embarked on a Corporate Planning (CorPlan) Project in 1992. This study is a parcel of data-gathering for this CorPlan Project.

The Project Contractor was tasked to: 1) develop a CPSC Corporate Planning Framework; 2) gather feedback regarding CPSC capability in five key result areas; 3) report on emerging development trends, priority demands on TVET Directorates and programs in seven member countries (Korea, Philippines, Papua New Guinea, Thailand, Nepal, Pakistan and Bangladesh); and, 4) make recommendations on future actions to CPSC, to TVET Directorates, and to donor agencies.

The study centered around five key result areas identified by the CPSC CorPlan Team, namely: 1) organization and management, 2) training and curriculum development, 3) research and development, 4) technical assistance/consultancy, 5) linkaging, networking and expanding the resource base.

A total of 214 respondents in seven countries were interviewed and/or were requested to answer a questionnaire. These were CPSC alumni, TVET sector representatives, technician graduates of local TVET courses and senior staff of CPSC.

Significant findings conclusions and recommendations of this particular study include the following:

A. Regarding CPSC

1. The CPSC mission should incorporate a regional mission which considers universality and diversity of member countries operating under an atmosphere of self-reliance.

2. Managing universality and diversity requires CPSC to adapt its organizatien and management structure.

3. Using the five key result areas as guideposts, some of the major findings and conclusions include the following:

E

Key Result Area: Organization and Management Capability
Goal: Strengthened Organization and Management Capability

FINDINGS/CONCLUSIONS	RECOMMENDATIONS
CPSC is still a major regional resource for technician education. All 7 member country respondents will continue to need CPSC assistance in enriching and strengthening technical/vocational education and trainino (TVET) in the next five years.	CPSC should be supported to continue its unique role as a resource center for Colombo Plan member countries. An organizational development process to evolve a series of Five-Year plans should involve policy-makers and Senior CPSC Staff.
Given the regional trend for expanding industrial and agricultural development, emergence of new and advance technologies, future TVET assistance requirements of the representative member countries center on four functions: training services (TS), research and development (R/D), consultancy/technical assistance (TA/C) and linkaging networking (L/N).	CPSC should continue its mission in the areas of appropriate training research and development, technical assistance/consultancy,linkaging/ networking and expanding the resource base.
CPSC management strategy while addressing universal concerns in TVET in the region should also be responsive to individual member country's need for growth and assistance.	To effectively address country- specific demands and needs, CPSC will require a set of Desk Officers who shall be tasked with: program development, fund sourcing, institutional networking and technical assistantance. These personnel shall be hired or seconded by member countries at their expense as their gesture of concern to the Colombo Plan.
The CPSC Director is overloaded with trivialities. The organization is weak in strategic planning and programming.	Streamline the functions of the CPSC Director. Establish a continuing organizational development and strategic management system at CPSC.
Senior staff is too small given increasing demands for services.	CPSC staff roles and functions. staffing pattern should be re-examined. Strengthen Senior Staff positions and capability. refocus support staff functions.

FINDINGS/CONCLUSIONS	RECOMMENDATIONS
No compilation of operating procedures exist for the organization.	A manual of operating procedures should be compiled to include: program development and corporate planning, administrative and financial management, evaluation and monitoring, and personnel management.

Key Result Area: Training Services
Goal: More focused training and/or projects relevant and priority to country/systems specific requirements.

FINDINGS/CONCLUSIONS	RECOMMENDATIONS
Member countries value CPSC's regional, sub-regional and in country trainings. Senior and middle level officers and faculty have benefited from these trainings with more knowledge and skills, more confidence to perform effectively. Senior administrators request for more advance courses for their continued professional growth. The regional and sub-regional trainings are valuable linkaging/networking opportunities also.	Continue opportunity for TVET Officers to participate in regional and sub-regional courses. Explore providing graduate or post - graduate academic credits for successful participation.
CPSC is generally an effective training institution but with increasing demand for training services in the region will not be able to respond to diverse and increasing demands given the current size of its faculty. More TVET institutions in maximizing training opportunities in the region.	To maximize multiplier effect, CPSC should consider creating an accreditation system whereby "TVET service centers" located in member countries and capable of delivering technology required, can render training services on behalf of CPSC.

FINDINGS/CONCLUSIONS	RECOMMENDATIONS
Selection of candidates for regional and sub - regional trainings is affected by efficiency of communication/ invitation. Two countries cited only one or two weeks notice so that participant selection was not always the most appropriate.	Strengthen selection process of participants to ensure those most appropriate are chosen. Examine communication system in this regard.
Private sector/industries are interested in participating in CPSC training and are willing to pay for services. They are willing to provide resources (facilities, instructors, scholarship) etc. Some collaboration with national TVEs exist through OJTs, joint funding scholarship, seconding managers as faculty. Involvement is not maximized however.	Open CPSC training to private sector/industries. Engage the private sector to provide facilities, internship/apprenticeship, sponsorship of training modules, upgrading equipment, etc. Identify opportunities for more collaboration.

Key Result Area: Research and Development
Goal: Systematically improved research and development organization activities.

FINDINGS/CONCLUSIONS	RECOMMENDATIONS
R/D is viewed as essential to improving TVET and making informed decisions. Member countries need to strengthen R/D capability especially local R/D expertise and funding.	CPSC must collaborate with member countries to assess R/D needs and priorities for organizing or upgrading. CPSC should assist member countries develop R/D Centers to maximize a multiplier effect. These centers can network among themselves for mutual benefits. CPSC can function as the host institution.

FINDINGS/CONCLUSIONS	RECOMMENDATIONS
CPSC has a small R/D unit with minimal budget support. Past research projects have been helpful; but outputs were not disseminated widely.	Revitalize and strengthen CPSC and strengthen CPSC R/D section, make it responsible for formulation, implementation, monitoring, evaluation and fund - sourcing of R/D programs for CPSC and to some expert member countries.
Member countries identified varying R/D priority needs. Common areas include models of effective manpower planning, models for collaboration between public/private sectors, management of TVET institutions, tracer studies for graduates' employment, etc.	CPSC should catalyze R/D projects in identified priority areas of each member country.

Key Result Area: Technical Assistance/Consultancy
Goal: Expanded technical assistance services to private sector and related publics

FINDINGS/CONCLUSIONS	RECOMMENDATIONS
Demand for consultancy will increase with emerging needs and desires for institutional capability. CPSC is expected to provide more TA/C or catalyze TA/C to member countries.	CPSC should strengthen capability for more vigorous consultancy services to member countries. It must collaborate with related institutions to provide services and fund sourcing.
Private sector/industries and non - members of Colombo Plan need TA/C from CPSC. Willing to pay for services.	Explore opportunities for TA/C to private sector/industries and other countries.
Short-term TA/Cs have been beneficial; however long-term TA/Cs may increase likelihood of skills transfer and production of outputs.	Explore pros and cons of long term consultancy as opposed to short-term.
Member countries foresee TA/C needs in different areas they expect CPSC assistance as provider or catalyzer of TA/C services in the next 5 years.	Assist member countries to identify, prioritize and plan TA/C.

Key Result Area: Linkage and Networking
Goal: Enhanced st' ategy and mechanism for establishing and sustaining workable networks and linkages.

FINDINGS/CONCLUSIONS	RECOMMENDATIONS
Generally weak spot. Who is/are responsible at CPSC?	Establish or strengthen formal linkage and networking function at CPSC. Director and Desk Officers should be responsible.
At the level of the respondents, they are not aware of CPSC linkages and networks. They think linkage/networking is vague and perceived informal with regional agencies like APSDEP, ILO, VOCTECH (SEAMEO): satisfactory with donors like ADB, USAID, JICA; minimal or non-existent with private sector/industry and NGOs. Potential impact on resource base is phenomenal if aggressively pursued.	Maintain regular contact. Strengthen collaborations with regional/international institutions and programs like APSDEP, ILO, INNOTECH, etc. Provide continued orientation to new heads of national TVETs, Ministries, institutions (regional, and international).
Expressed need for information center or clearinghouse where up-to-date info on TVET, research results are collected and disseminated to member countries and others, on a regular basis. CPSC has Regional Information Center for Technician Education.	CPSC should revitalize and strengthen its information functions. The CPSC Regional Information Center should be strengthened and tasked to fulfill this function. Develop a system for information sharing and dissemination.
As described above, increased demands and needs in the region for TVE training, R/D, TA/C collaboration and linkage will require increased, improved, varied assistance from CPSC. Beyond monetary implications, opportunities for collaboration are tremendous. Current attitudes for collaboration and partnership are positive. CPSC stands to benefit from a systematic, planned resource development strategy.	It is recommended that the following opportunities in linkaging with private sector/ industries and with donor agencies be considered. I. Opportunities for Donor Agencies Technical assistance for any of the following: - Strengthening of R/D unit at CPSC - Revitalization of CPSC Regional Information Center including set-up of info dissemination facilities. - Establishment of computer data-base of accredited TVET consultants and TVET insitutions.

FINDINGS/CONCLUSIONS	RECOMMENDATIONS
While member country contributions increase at 6% annually, attitude seems to be of maintenance. Current funding may be sufficient to maintain current level of services. Some major donors have decreased financial support to CPSC in the immediate past. CPSC as a training institution has a unique role in TVET. It is in a strong position to attact resources and partnerships. Many working models exist. Opportunities should not be ignored to enhance CPSC capability to fulfill its vision as "regional resource center of excellence in technician education and training"	- Set - up of accreditation system of consultants and institutions and actual accreditation of a desired number. - Development of CPSC Manual of Operating Procedures. - Continued funding of training courses, consultancy services, research and development projects. - Instructional materials development and upgrading of training resource materials including printing and dissemination. - Libraries and equipment upgrading. - Consultancy for capability-building and - Strengthening of TVET institutions in number countries. II. Opportunities for Private Sector/Industry - Scholarship programs in tech/voc high school and/or college. - Professional chairs funding - Expansion school-to-job trainings, apprenticeships, internships. - Seconding corporate managers and supervisors as tech/voc faculty or instructors. - Advocacy for increased in-plant training programs. - Partnership or cost-sharing in conducting training programs use of facilities and instructors. - Strengthening of TVET or Councils with private sector/industry representatives. - Sourcing project grants from big private corporate foundations for - Special training courses, research projects, materials production especially in local language. - Organizing top 100 corporations into a TVET advocacy and support network.

B. Regarding the Seven Respondent Countries

1. Emerging needs of respondent Member Countries are shaped by their unique development directions.

2. Member Countries regard CPSC as a major resource for Technician Education and expect more assistance and collaboration in the next five years.

3. Respondent Member Countries' needs, demands and priorities to develop and/or strengthen national and local TVET capability vary accordingly.

4. TVETs in the respondent countries exhibit diverse strengths and weaknesses in all five key result areas.

The CorPlan Project is expected to utilize the findings and recommendations of this and two other studies. The next step is for the CorPlan Team to craft a CPSC Five-Year Corporate Plan.

To assist the CorPlan Team, this Project Contractor recommends a CorPlan Framework which includes six elements.

- Integration of findings of the USAID, AIDAB and CESO studies
- Creation of a CPSC vision
- Establishing an organizational strategy which includes mission, goals, objectives, action plans, prioritization and budgeting, implementation, monitoring and evaluation
- Articulating organizational values
- Establishing organizational structure

This study was an excellent opportunity to learn about the state of CPSC and the state of TVET in the respondent countries. Findings significantly underscore the changing technological scenario in the region and the unique and critical role CPSC is expected to play to advance TVET capability in the member countries.

I. INTRODUCTION

A. Overview

> *"The need for corporate planning is so obvious and so great it is hard for anyone to be against it. It's one of the most complex and intellectually demanding activities in which we can engage. Not to do it well is not a sin, but to settle for doing it less well is."*
>
> Russell Ackoff
> *A Concept of Corporate Planning*

After 17 years, the Colombo Plan Staff College for Technician Education (CPSC) embarked on its first ever corporate planning process in late 1992. It is being supported by the United States Agency for International Development (USAID), CESO and AIDAB in this all important undertaking.

To survive and flourish, CPSC must face the future knowing -

- what it must be (vision)
- how to get there (strategy)
- and, use a set of operating principles to guide its behavior (values)

The task of improving CPSC's strategic decisions is not simple. There are no rules which can guarantee success. Experience does show that planning processes should change with the planning needs of an organization; analytical tools can supplement but not supplant good thinking; and, that a successful strategy cannot be developed without creative ideas at the beginning and management commitment in the end.

CPSC's policy - makers and key Directors, through this Corporate Planning Process are undertaking a complex but very crucial step towards attaining a renewed, envigorated and more responsive College; expected to continue to fill the important role of resource center for technician education in the Colombo Plan region for the next five years.

B. Background and Rationale

The Colombo Plan Staff College for Technician Education (CPSC) was established in December 1973 with a Memorandum of Understanding signed by the member governments of the Colombo Plan. It is governed by a Governing Board composed of heads of diplomatic missions of member countries assigned in the host country.

The government of Singapore hosted the College up to 1986 when the headquarters moved to Manila at the invitation of the Philippine government.

CPSC enjoys a good reputation as a resource for technical and vocational education and training (TVET) in the Colombo Plan region. It is the only organization in the region which is devoted to technician education and training.

To keep CPSC responsive and relevant to the changing technical/ vocational training needs of Colombo Plan member countries, it conducted program reviews and administrative capability assessments in 1984 and in 1990. A USAID evaluation mission was conducted in 1991.

In the middle of 1992, CPSC began a Five-Year Corporate Planning Process. To move this process along, USAID provided CPSC with funds to hire a consultant. The Contractor, Philip Gielcyck and his associate, Associated Resources for Management and Development (ARMDEV), was tasked to develop a framework for a Five-Year Corporate Plan. In this regard, the Consultant was to gather relevant information which will be used to evolve the Five-Year Corporate Plan for CPSC (1993-1997). The following is the Contractor's Report on the CPSC CorPlan Framework Project.

C. Objectives of the Study

This CorPlan Framework Project was designed to accomplish the following:

- Develop a Corporate Planning Framework.

- Gather feedback regarding CPSC on five key result areas: namely, organization and management capability, training, research and development, consultancy and linkage/ networking capability.

- Gather information about economic development trends in seven representative member countries (Bangladesh, Korea, Nepal, Pakistan, Papua New Guinea, Philippines and Thailand); relate these to needs for technical and vocational training and education (TVET) in the particular countries and the region.

- Describe the current capability and emerging needs of target country TVET Directorates on identified key result areas.

- Make recommendations on future CPSC directions in all five key result areas, including expansion of the CPSC resource base and future CPSC collaboration with donor agencies (including USAID), the private sector, and the member countries.

D. Conceptual Framework

This particular project is part of a bigger process designed to evolve a Five-Year Corporate Plan for CPSC. It was guided by the following CorPlan Conceptual Frame developed by Dr. Iluminada Espino, a Faculty member of CPSC.

Essentially, the major direction for the Corporate Planning Project is drawn from the legal base of CPSC, the recommendations of the USAID Study Mission and reinforced by common concerns of member countries as expressed in the most recent consultative meeting of senior administrators in June 1992.

Development Objective

Continuously enhance the effectiveness of CPSC as a regional development resource center in the improvement of technician education and training, primarily in the member countries.

Formulate a Five-Year CPSC CorPlan which could effectively and efficiently achieve the CPSC mission, as indicated by:

strengthened organization and management capability;

enhanced strategy and mechanism for establishing and sustaining workable **networks and linkages;**

more focused training and/or projects to relevant and priority country/system specific requirements;

expanded technical assistance services to the private sector and other related publics;

and, systematically **improved research and development organization activities.**

Specific Objectives

1. Describe system(s) profiles (country and CPSC) representative of the CPSC region:

2. Identify critical trends, issues, problems, and concerns (of the representative countries and CPSC):

3. Relate #1 and #2 to the CPSC mission:

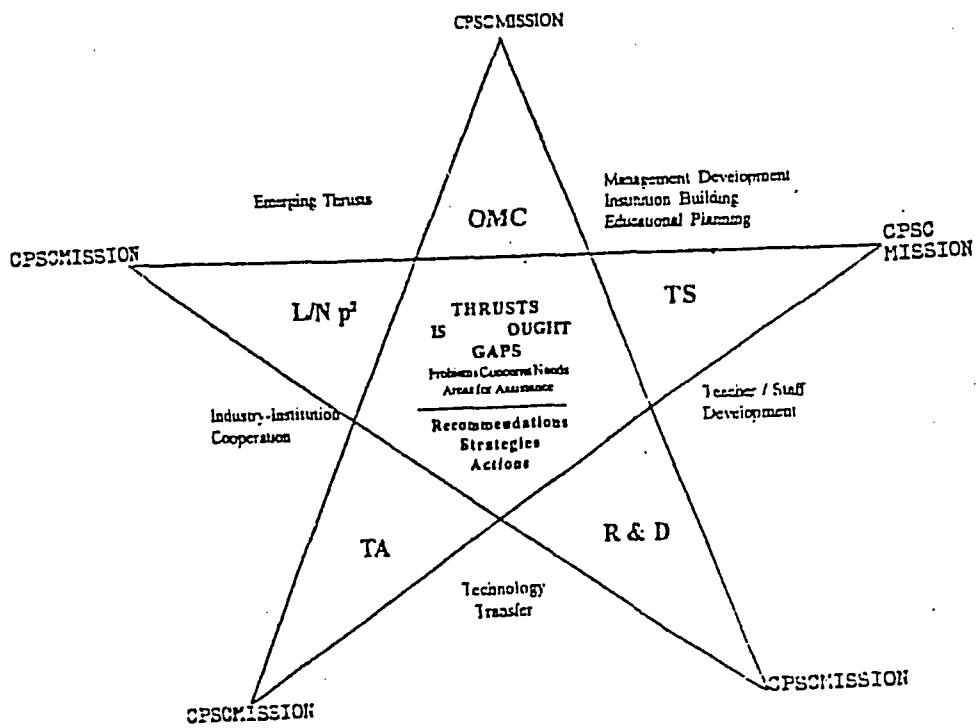
4. Draw development insights to improve -

* technician education and management in member countries: as well as:

* the performance effectiveness and efficiency of the College.

5. Recommend to CPSC a Five-Year Strategic Plan of Action to contribute to its development objective.

Figure 1. CorPlan Conceptual Frame



As stated earlier, the project concept is specifically guided by the CPSC mission statement and the recommendations of the USAID study mission. These are categorized into five key result areas, which are **schematically described as the five rays of a star** (Please refer to Figure 1) :

Organization and Management Capability (OMC)
Training System (TS)
Linkage/Network with Public and Private(L/Np2)
Technical Assistance (TA)
Research and Development (R & D)

The CPSC, in its effort to achieve its **mission** and maintain its distinctive position as a center for excellence in the region, has to continuously strengthen its organizational and management capability; focus its training system to region/country specific requirements; broaden its linkage/networks with the private and public sectors; enhance its technical assistance and consultancy services; and enrich its R & D organization and activities.

With these key result areas in mind, the project needs to examine the current situation obtaining in the seven representative countries of the region (Korea, Thailand, Philippines; Pakistan, Bangladesh and Nepal; and, Papua New Guinea). Their perceived expectation of the role of CPSC in these areas will be examined in terms of perceived country benefits. Subsequently, recommendations are formulated along the same areas based on the identified gaps/problems/issues/concerns/needs. The specific areas for CPSC assistance per country are likewise identified.

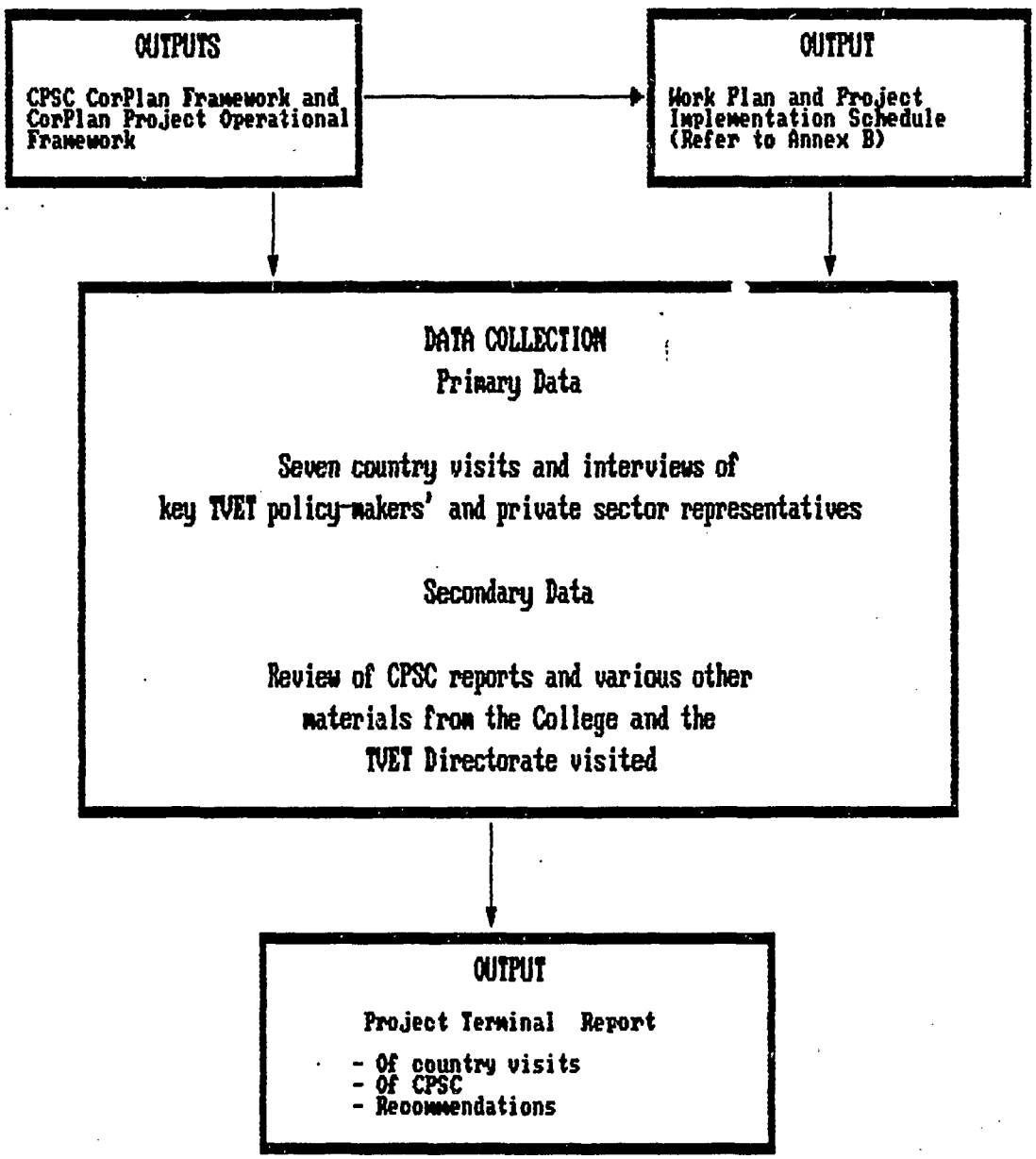
The five key result areas are bound by the same goal of identifying gaps and areas for CPSC assistance (center of the star), in order to recommend policy structures and strategies to effectively optimize the achievement of the CPSC mission (direction of rays).

E. Operational Plan

The Project Agreement between Dr. C.K. Basu, Executive Director of CPSC and Philip Gielcyck, the Project Contractor, was the guiding document in the implementation of this project. (Refer to Annex A.)

The CorPlan Framework Project Contractor implemented the project following the operational frame as shown in Figure 2 below:

Figure 2. Operational Plan



The Project Contractor developed the following Project Implementation Schedule:

Project Implementation Schedule

Target Dates	Activities	Person Responsible
PREPARATION PHASE		
Oct. 1-15	1. Formalize project agreement	P.Gielcyk/Dr. Espino
	2. Orientation and planning meetings	C. Motus/ Dr. Espino
	3. Formulate Project implementation framework, action plan and implementation schedule	C. Motus
	4. Draft conceptual framework of Corporate Planning Project	Dr. Espino
	5. Detail conceptual framework	Dr. Espino
	6. Identify respondents	P. Gielcyk/ Dr. Espino
	7. Send letters to all respondents and CPSC Liaison Officers	Dr. Espino/ P. Gielcyk
	8. Draft questionnaires	Motus/Alto/Art
	9. Process cash advance	P. Gielcyk/ Dr. Espino
IMPLEMENTATION PHASE		
Oct. 16-20	1. Finalize questionnaires	C. Motus/ Dr. Alto
	2. Finalize travel schedule	C. Motus/ Dr. Alto
	3. Process travel papers (visas and tickets)	Diane
	4. Order business cards	Diane
Oct. 20	Field test questionnaires	Alto/Espino/ Motus/Art

Oct. 20-Nov. 8	1. Gather secondary data	Art/Motus/ARMDEV Researchers
	2. Refine questionnaires	C. Motus/ Dr. Alto
	3. Interview Philippine respondents	ARMDEV Researchers/ C. Motus/Art A.
	4. Develop CPSC fact sheet or brochure to hand out to private sector respondents	Dr.Espino/ Dr. Alto
	5. Finalize country visit appointments, land transportation, hotels	Dr. Espino/ Diane
	6. Reproduce questionnaires CPSC Fact sheets for country visits	Diane
Nov. 6	Process cash advances for travel	Diane
Nov. 9-23	1. Visit target countries	
	-Korea/Thailand	Motus/Alto
	-Bangladesh/Nepal/ Pakistan	Art A./Gielcyk
	-Papua New Guinea	Dr. Alto
	2. Consolidate and process data	C. Motus/Dr.Alto/ Art A./P.Gielcyk
Nov. 24-Dec. 1	1. Analyze/interpret data	C.Motus/Art A./ P.Gielcyk
	2. Submit financial report	Diane

REPORT WRITING AND SUBMISSION

Dec. 2-31	Draft report	C.Motus/Art A.
Jan. 13	Submit first draft report to CPSC	Gielcyk
Jan.15-20	Review first draft report	Dr. Espino/CPSC
Jan.21-31	Revise report	Art A./C. Motus
Feb. 15	Printing of report	P. Gielcyk/ C. Motus
March 1	Submit Project Report	P.Gielcyk/C.Motus
	Submit financial report	P. Gielcyk

E.1 Methods and Procedures

E1.1 Scope of the Study

Given the limited project budget, CPSC tasked the Project Contractor to visit six representative countries (Korea, Philippines and Thailand for Southeast Asia; Nepal, Bangladesh and Pakistan for South Asia) to gather primary and secondary data. The seventh country (Papua New Guinea) was studied by the CPSC Assistant Coordinator for the Corporate Planning Project.

E 1.2 Methodology and Limitations

Several materials provided much of the background information on TVET, CPSC and the representative countries. Two basic strategies for data collection were used:

Secondary data gathering. Internal reports furnished by CPSC such as the Corporate Planning and Networking Meeting Report (1-5 June 1992), Internal Review of College Program and Activities (December 1990), and the CPSC Feasibility Design Study (no date) proceedings of the Technical and Vocational Education and Training seminar held in January 1990 provided valuable background information which were validated during the interviews. CPSC Quarterly, course evaluations, some of Lemuel Miravalles' data and memos to the Corporate Planning Team, agency brochures and other pertinent materials gathered and read were very helpful.

Primary data gathering. Key informants/ respondents were interviewed individually or in focused group discussions to get fresh ideas and to validate assumptions mentioned above. Questionnaires were developed for each of the target respondent category. These were filled either by the respondents themselves or by the research specialists during interviews or discussions. (Refer to Annex C for copies of questionnaires used.)

Discussions centered around items in the questionnaires to allow for clarification of questions, for probing where necessary, and to increase the level of reliability of the study.

ARMDEV Research Specialists spent 3 working days in Korea and Thailand: five days each in Bangladesh, Pakistan and Nepal. The CPSC Asst. Coordinator spent five days in Papua New Guinea. The Philippine data was gathered by an ARMDEV Researcher. Considering the budget and time (preparatory and in-country) limitations, plus severe traffic jams in major cities visited, only a small but quite reliable representative sample was reached.

Where possible, private sector was interviewed before the public sector respondents. This procedure was chosen in order to utilize feedback from the private sector as probing talking points during focused group discussions with public sector respondents. This strategy worked well.

This report has several limitations. While it may have been ideal to have collected information from CPSC-experienced participants, and samples from a wide geographic spread, this was not possible. When reading through this report, it is important to remember that :

- the data is limited to information from respondents and materials available in the metropolitan areas of Bangkok, Dhaka, Karachi, Kathmandu, Manila, Port Moresby and Seoul;

- the sampling includes alumni who may have had only one or at most two courses experienced with CPSC; and therefore cannot assess total capability of the organization. Respondents who are not familiar with CPSC or did not feel comfortable responding to some of the questions were told not to fill those particular portions of the questionnaires.

E.2 Respondents/ Key Informants

In order to collect a good cross-section of perspectives, the following groups of respondents were interviewed:

CPSC Senior Staff - the CPSC Director, two Faculty members, and six other senior staff members

CPSC Alumni - Member country participants of either in-country, sub-regional or regional courses offered by CPSC. All alumni interviewed are current Directors or Division Chiefs of national TVET Directorates, Deans or professors of technical colleges and universities.

Non-Alumni - Key policy-makers in TVET national Directorates who have not attended any CPSC course but may have heard of CPSC or been involved in the selection of CPSC participants.

Technicians - graduates of local TVET courses.

Private Industry and Business Managers - Executive Directors of Chambers of Commerce, multi-national corporations, manufacturing and engineering companies and agribusinesses.

All respondents graciously participated in the study. The Liaison Officers or their designees did a marvelous job of organizing the country visits. The Research Specialists were accorded warm hospitality and inspiring cooperation. Refer to Annex D for a list of agencies and respondents interviewed in all seven countries. Figure 3 summarizes the sampling used in this study.

Figure 3. Sampling Summary

Country	CPSC Alumni	TVE Directors Non-Alumni	Technician Graduates	Private Sector	CPSC Staff and Others	Total
1. Bangladesh	10	9	11	6	6	42
2. Korea	9	5	0	8	0	22
3. Nepal	8	6	10	4	0	28
4. Pakistan	13	4	7	4	0	28
5. Papua New Guinea	13	8	9	4	0	34
6. Philippines	6	6	6	5	9	32
7. Thailand	16	8	0	4	0	28

II. ANALYSIS OF FINDINGS AND RECOMMENDATION

On the Colombo Plan Staff College for Technician Education

A. EMERGING NEEDS OF MEMBER COUNTRIES ARE SHAPED BY THEIR UNIQUE DEVELOPMENT DIRECTIONS

New economic orders are shaping up in the representative member countries consulted for this study. In the South Asia region (Nepal, Bangladesh and Pakistan), streamlining and decentralization of government, privitization of government-owned corporations with emphasis on local development and trade liberalization are the thrusts of change. Tech/voc institutions will play pivotal roles in providing educated and well-trained manpower to local industries and production centers of traditional crafts.

Papua New Guinea is clamoring for localization of all sectors. Expanded agricultural production and processing, diversified industrial base through expansion of mining and forestry, increased activity in civil construction, manufacturing and tourism industries will require improved technical skills in all fields of engineering and technical/vocational education and training (TVET), increased technology application including automation and computers; improved management skills and increased participation of women in technical/vocational labor market.

In the Philippines and Thailand, export-oriented free market and liberalization of foreign investments influence the industrial and agricultural development thrusts. Agricultural production and processing, manufacturing, tourism and construction will continue to be major economic directions. Expanded production, manufacturing and computerization; nagging concerns on environment, energy, potable water supply will require new technologies and skills. Both the Philippines and Thailand aspire to be NICs before or by the year 2000. TVETs will be tasked to provide well-trained manpower to the expanding industrial and service sectors.

Korea will maintain a "technology-first" policy to boost the nation's competitive edge in the international market. The Korea model for economic development includes government legislated change in education priorities of the country; a legislated shift in provision of TVET from mainly government to a mandated in-house training by industries.

Clearly the scenario in the region spells increasing demand for trained technical manpower; growth of TVETs and opportunities in new technologies. The emergence of new, improved, varied technologies will require TVET directorates to keep pace.

B. CPSC SHOULD INCORPORATE A REGIONAL MISSION WHICH CONSIDERS UNIVERSALITY AND DIVERSITY OF MEMBER COUNTRIES OPERATING UNDER AN ATHMOSPHERE OF SELF-RELIANCE

The study shows that member countries have both different and common needs. All respondent countries expressed a strong desire to strengthen internal capability to successfully direct TVET programs responsive to local industrial, service and/or agricultural demands in the years ahead.

CPSC is projected to fill a continuing leadership role in the capability-building and self-reliance agenda of member contries. To be able to relate to the differing demands of member countries, CPSC should incorporate a regional mission which considers the universality yet also the diversity of member countries operating under an atmosphere of self-reliance.

The following section summarizes and analyzes findings of this study in relation to CPSC's capability in the five key result areas.

B.1 On Organization and Management Capability

The Conceptual Corporate Planning Framework describes the desired state to be "strengthened organization and management capability" in the next five years.

Findings and Conclusions:

The region will require continued TVET resources and services as new trends and technologies emerge in the Colombo Plan member countries. Most respondents expect CPSC to continue to be the major regional resource for technician education and training. In light of this, CPSC needs to be more creative and innovative in exploring options for the future in providing leadership, training and development in technician education.

However, a strong emerging trend indicates the demand of member countries for CPSC responses to particular unique country needs thereby suggesting the possibility of incorporating an emerging mission in the 1990's and beyond - LOCAL CAPABILITY-BUILDING OF THE MEMBER COUNTRIES' TVET SYSTEMS.

Corporate Mission

According to respondents, the CPSC purpose as stated in the 1987 CPSC Constitution still aptly describes the vital mission of the organization in the next five years. However, given the point on capability-building described above, the following mission statement will have to be recrafted to reflect the point.

> "to assist...in the improvement of the quality of technician education and training in the countries of the region and to that end - a) undertake programs in staff development and training, and development and research; b) serve as a regional forum for discussion; c) provide an advisory and resource service,; and
> "

Strategic Goals

Respondents perceived CPSC's fulfillment of its mission as a resource institution to be low to satisfactory (In a scale of 1-4). They generally agreed that CPSC key result areas (KRA) should continue to be in **appropriate training, research and development, and consultancy (TRDC).** Additionally, they stated that they require steady and regular supply of updated TVET information and materials, one of the functions of the linkaging and networking KRA - an area of service not fully realized. Subsequently, in the next five years, member country respondents expect CPSC to strengthen its linkage and networking capability with them (ministries, TVET Directorates, tech/voc institution) as well as with related regional and international organizations, donor agencies, non-governmental organizations (NGOs) and the private sector/industries.

The Conceptual Corporate Planning Framework listed above the suggested strategic goals (KRAs) of CPSC in the next five years. Measurable enabling objectives must be written to support achievement of the goals.

Managing Universality and Diversity requires CPSC to Adopt its Organization and Management Processes

Strengths and Weaknesses

The USAID-funded study shows that CPSC is widely valued and appreciated as a technician training institution by member

countries consulted. It is credited for having contributed to the development and strengthening of national TVET Directorates and local tech/voc institutions.

CPSC is generally perceived as a unique training resource, the sole regional institution devoted to technician education. Many among the respondents also identified competent faculty and a culturally sensitive international staff as strengths.

On the other hand, respondents stated that CPSC has not been able to provide as much country-specific attention as they required. Access to key staff has not been easy sometimes because of their busy schedules. Besides, CPSC lacks facilities for actual technical training of technicians.

While the current organization and management capability (OMC) of CPSC is rated as satisfactory, there are management concerns which need immediate attention. If CPSC is to survive and remain as a credible regional center for tech/voc education and training, it must manage its directions, strategies and resources effectively.

These management areas of concern include among others:

1) weak strategic thinking, planning and programming process

2) glaring lack of a written manual on operating procedures

3) perceived limited budget and dwindling resources

4) small faculty.

Recommendations:

<u>On Mission and Local Capability-Building</u>

1) CPSC should be supported to continue its unique role as a resource center for technician education in Colombo Plan member countries. In order to remain relevant to the member countries, an organizational development process to evolve a series of Five-year Corporate Plans on a regular basis should be modelled, formalized, institutionalized at CPSC. A similar organizational

development process should be encouraged in member countries which have not installed one. The Five-Year plans must be reviewed annually.

2) CPSC should continue its mission in the areas of **appropriate training, research and development, and consultancy** (TRDC) services. Moreover "**linkaging and networking**" should be added to the mission statement and should be pursued vigorously by the College.

3) CPSC in collaboration with national TVET Directorates should advocate for a healthier more positive attitude toward technical and vocational issues and funding among government policy-makers and the greater community.

4) CPSC should assist where required, in building self-reliance among the member countries to improve on their own effective management of national, local and institution-based TVETs.

<u>On Internal Strengthening of CPSC Management</u>

5) The functions of the CPSC Executive Director must be continually streamlined to allow for strategic management functions to be done. The Director should not be overloaded with trivialities.

6) CPSC Staff's roles, functions, staffing pattern should be reexamined. Strengthen Senior Staff positions and capability, refocus support staff functions.

7) A manual of operating procedures should be compiled to include: program development and corporate planning, administrative and financial management, evaluation and monitoring and personnel management.

<u>On A Hierarchy of Delivery System</u>

8) To effectively address country-specific demands and needs, it is recommended that CPSC establish a Desk Officer system which shall be tasked with : program development, fund sourcing, institutional networking and technical assistance. A criteria for determining Desk Officer qualification, selection and workload shall be created.

These personnel shall be hired or seconded by member countries at their expense as their gesture of concern and goodwill to the Colombo Plan.

B.2 On Training/Technology Transfer

The CPSC Corporate Planning Framework envisions, "more focused training and/or projects relevant and priority country/system specific requirements " for the next five years.

Findings and Conclusions:

Different development trends in the representative member countries will require different TVET responses. The bottomline is that TVET trainings will be in even greater demand in varying technologies. CPSC is expected to continue to support the member countries with appropriate direct training services to all target clientele - policy-makers, administrators, technician teacher educators, teacher trainers and senior staff of technician education institutions.

The next five years is expected to usher construction of more TVET training facilities, demand for new training courses and materials on the emerging thrust areas; demand for more and better trained instructors and faculty.

Assessment of College-Based Trainings

Respondents (alumni and senior officials) value CPSC regional, sub-regional and in-country trainings. Senior Officers from ministries and tech/voc institutions reported that the positive effects of CPSC training on their competence as officers (more knowledge and skills, more confidence) and on the TVET programs/institutions they manage.

Strengths and Weaknesses

Weak points expressed included the concern that in some training courses, English as a medium of instruction (especially if lecturers have low proficiency in the language) hampered effective learning of some participants. Moreover, some in-country courses were not challenging nor interesting enough to the participants. Usually, after the first day, attendance dwindled.

Senior administrators expressed the fact that CPSC courses are more often too basic; and that they do not earn credits toward professional growth. They requested for more advance courses which provide continued professional challenge at

their level. They indicated that regional and sub-regional trainings are valuable linkaging/networking opportunities. As venues for information exchange and updating, their country's TVET programs benefited from the activities.

CPSC is generally rated as an effective training institution. However, with increasing demands for training services in the region, it will not be able to cope as efficiently given the current size of its faculty. Somehow training capability will have to be multiplied through other means without losing the quality of CPSC trainings.

Some TVET institutions in member countries have world-class competence and facilities. They are willing to partner with CPSC in maximizing training opportunities in the region. These institutions can be strengthened to become training centers in the country or the sub-region.

It has been noted that in all countries interviewed, supposedly men and women have equal access to CPSC courses, to tech/voc programs in the countries, to tech/voc employment. Certain countries however still observe social separation of gender in certain professions or vocational undertaking. Respondents indicate for example that there are more women in garments, food processing and traditional crafts/industries. Men still dominate all fields of engineering, most managerial positions. Socio-cultural factors dictate participation of women in such countries as Korea , Nepal, Bangladesh and Pakistan. Thus fewer women avail of or are selected to participate in CPSC courses as well as in tech/voc programs and employment in some member countries.

On another point, entry knowledge and skills of participants were observed at varying levels. Content of CPSC trainings had to flex to accommodate the variance; thus losing some participants' attention in the process. Courses like computer application, should be offered to homogeneous groups, with common entry knowledge and skills on the subject matter.

There are institutions locally and regionally which offer similar courses as CPSC ;and, have been observed to provide programs using more updated facilities, and in most instances contextualized to the local conditions (for example, use the local language). These courses are more attractive to in-country participants.

Follow-up was not built into the CPSC training programs. Respondents expressed the need for continued dialogue and checking of application of learnings. Transfer of skills and technology has to ascertained.

Moreover, an impact study of CPSC training has not been done. A study to determine effectivity to transfer skills/ technology in relation to length of courses should be helpful to future programming decisions and changes.

Training Content

In the course of the study, it was discovered that member countries shared common universal and regional concerns, i.e. entrepreneurship, women in industrial development, environment, work ethic (management and labor relations) and population. Major issues and needs centering on these emerging concerns should be integrated in all training courses of CPSC.

It was clearly shown in the country missions that while training needs differ from country to country, there were shared needs in core tech/voc courses like management of TVET institutions and institution-building, teacher training or training of trainors, program development, manpower planning, research and development methods, curriculum and materials development upgrading.

Moreover, member countries expressed need for training services on new technologies listed above: computer application, environment, entrepreneurship, women in industrial development and others. In addition, some countries identified other priorities like tourism for Nepal, adoption of traditional production techniques to modernization for South Asia, and distance study and agritech for Bangladesh among others.

Some countries expressed the need to upgrade specific skills training curriculum, materials, equipment, etc. For example, Bangladesh desires to upgrade electronic skills training programs: Nepal would like ceramics production and modern production techniques for rural crafts; and, Thailand needs skills training in petrochemical manufacturing.

Training Materials

While some countries rated CPSC training instructional materials as average to high, these were considered inadequate in quantity. Moreover, respondents mentioned an acute lack of training resource materials; and materials contextualized to users needs and local situation of member countries. This is an area of growth and possible partnership with donor agencies.

Selection of Participants

Selection of candidates for regional and sub-regional trainings were affected by efficiency of communication/ invitation. Two countries cited only one or two weeks lead time. Selection of participants therefore were not always the most appropriate. CPSC must continue to work closely with the Liaison Officers to ensure efficient dissemination of course notices. Where applicable, CPSC should consider sending communication to all ministries which provide TVET programs in their particular country. In Korea, for example, three Ministries are involved - Science and Technology (MOST), Labor, and Education. CPSC communicates only with MOST. The two other ministries are dependent on the efficient transmittal of information from MOST.

Private Sector/Industry Participation

Large private businesses/industries are interested in participating in CPSC training courses and are willing to pay for services. They are also willing to share resources (facilities, materials, instructors, etc.). While some collaboration exist between private sector/industries and the national TVET directorates: with CPSC itself, it is virtually non-existent. Most if not all private sector/industry interviewees have not heard about CPSC: some were suprised to hear that CPSC is still in operation.

Small and medium scale industries have as much training needs if not more than the large scale industries. They do not have the resources to provide training opportunities and programs. This sector needs assistance in designing cost-shared training programs, training management skills and others.

Recommendations:

1) In consultation with individual member countries, CPSC should establish a program development system, which includes training needs analysis as the basic step to designing country-specific training courses. Desk Officers should be responsible for the formulation, implementation and monitoring of this system.

2) CPSC should continue to offer regional and sub-regional trainings to all client groups from member countries. In addition, it should explore granting graduate and/or post-graduate academic credits to successful

participants. It should continue to collaborate with member countries in prioritizing training courses for regional, sub-regional and in-country offerings.

3) To maximize multiplier effect, CPSC should consider creating an accreditation system whereby " TVET service centers" located in member countries and capable of delivering technology required, can render training services on behalf of CPSC. CPSC can strengthen a pre-determined number of tech/voc training institutions as a primary strategy, to support the desire for local capability-building and self-reliance.

4) CPSC should catalyze the development of training resource materials for dissemination among member countries. In some instances, instructional and resource materials should be in the local language.

5) CPSC must strengthen its follow-up mechanism to maximize training impact; to ensure application and utilization of learnings. CPSC should encourage regular meetings/conferences of CPSC alumni to update, scan and assess TVET development in member countries.

6) In collaboration with member countries, the College should create computer-based data on highly qualified and experienced TVET experts and institutions. Where possible, regional and local resource persons should be used in College-based trainings.

7) Encourage more women to participate in CPSC training courses. Advocate for strong WID policies in member countries.

8) Conduct an impact study of CPSC courses to determine effectiveness. Include duration of training as a variable in determining achievement of a comfortable level of competence/ transfer of technology to participants.

9) Strengthen the selection process of participants to ensure those most appropriate are selected. Examine communication system in this regard.

10) Open CPSC training to private sector/industries. Develop collaboration through among others, joint trainings, internships/ apprenticeship, sponsorship of training courses, sharing of facilities and materials, upgrading of equipment or library, and others.

11) Catalyze outreach training services to small and medium scale businesses and industries.

B.3 On Research and Development (R/D)

The Corporate Planning Framework states the goal as, "systematically improved research and development organization and activities". R&D is CPSC's growth area in the next five years. Member countries have identified their particular R&D needs and look to CPSC to provide assistance.

Findings and Conclusions:

Research and development is considered essential to improving technician education especially in making informed decisions regarding TVET directions, materials, curricula, and others.

CPSC's and the member countries' R/D capabilities are rated to be low to satisfactory. All respondents stated the need to strengthen CPSC's R/D capability in number of research undertaken; in fund support to R/D unit and program; and in dissemination of research results. Feedback indicate that member countries are not aware about research projects undertaken by the College and the results of these researches. There is a need to not only organize a more active R/D Unit, but more importantly to establish communication lines with member countries regarding R/D plans of the College. R/D results are currently shared through monographs published by the College and sold to the public.

CPSC has a small R/D unit with minimal budget allocation. Research and development is one of the major missions of the College, yet it appears R/D services and capability have not been developed to the fullest potentials by the organization.

While member countries have been conducting in small measure, research projects, respondents expressed a need for continued monitoring, inventory and scanning of new technologies in the region. They feel CPSC should on a regular basis, update member countries on this matter.

Member countries identified varying R/D priorities. Specifics are described in the country profile section of the report. Common R/D needs include among others: Models of effective manpower planning, models for collabration between public and private sector/industry, management of TVET institutions, tracer studies for graduates' employment.

Recommendations:

1) Revitalize and strengthen CPSC research and development unit.

CPSC should revitalize and strengthen its research and development unit which should be responsible for formulating, implementing and evaluating a vigorous R/D program for the College.

2) Regional Information Center

It is strongly recommended that the College revitalize the CPSC Regional Information Center so that it functions as a clearinghouse where TVET information and research results are collected and distributed to member countries on a regular basis. The Center should collaborate closely with R/D Unit in scanning the technological environment and updating member countries on findings.

3) Research Priorities

CPSC catalyze R/D projects on identified priority areas of each member country as well as on regional TVET issues. The following are some of the common R/D tracks suggested by representative member country respondents:

- models for effective manpower planning
- models of collaboration between public and private sector
- models in management of TVE institutions
- environmental education
- women in industrial development.

4) Dissemination System

Develop an effective dissemination system for formally sharing R/D results to a wider audience. Media advertising should be done for new publications. The current newsletter, CPSC Quarterly should have a section on research and development activities/plans of the College as well as member countries. Continue to use meetings/conferences/ training courses to share R/D information.

B.4. On Linkaging and Networking

"Enhanced strategy and mechanism for establishing workable networks and linkages" is the goal for this particular key result area.

Member countries perceive minimal linkage between CPSC and the private sector, between CPSC and donor countries, and between CPSC and other related tech/voc agencies. Everyone is unanimous in suggesting that closer collaboration be pursued. Even the linkage with member countries needs to be nurtured continually because TVET Directors and other ministry officials change.

The future role of CPSC is envisioned to be as catalyzer and coordinator of regional activities in tech/voc education; over its current role as provider of training and consultancy services. Given future trends in development and increased needs in streamlining and enriching tech/voc capabilities in the member countries, demands of CPSC will require more funds, more personnel and higher expertise.

CPSC cannot meet all of these demands alone. It has to collaborate and network with international and regional organizations, with private businesses and industries, with member country policy-makers and decision-makers- and with local voc/tech institutions or polytechnics. For its continued survival as an institution, CPSC has much to do to re-establish and/or strengthen its network; to harness and maintain sufficent goodwill from all member countries, and to gather enough resources to support continued operation.

Findings and Conclusions:

On National TVET and Private Sector/Industry

There are models which organized and legislated linkaging, formalized networking between the private sector/industry and TVETs in all representative member countries. These include the time-tested programs like OJTs, apprenticeship/ practicum, scholarship, secondment of faculty, joint sponsorship of seminars and other learning activities, school-industry connection.

In some countries like Korea and Japan, government policies which require the private sector to bear part of the cost and burden for vocational training have shown encouraging results.

On CPSC and Private Sector/Industry

Unfortunately, minimal or no linkage has been established between CPSC and the private /industry sector. This is considered a weak spot.

Current attitude for collaboration and partnership with the private sector/industries is positive on the part of especially large multinational industries. CPSC stands to benefit from a systematic, planned resource development strategy.

On CPSC and International and Regional Agencies

CPSC, on the other hand, is rated to have satisfactory linkage with donor agencies (USAID, AIDAB, CIDA, JICA, etc.) in so far as access to project funds are concerned. However, for whatever reasons, major donor country contributions and linkage have diminished in the last few years.

Respondents also stated that CPSC linkage with regional agencies like APSDEP,VOC/TECH (SEAMEO) is vague.

On Expanding CPSC Resource Base and Linkage with USAID and other Donor Agencies

The USAID-funded study specifically required the inclusion of ideas on future collaboration between USAID and CPSC and expanding the resource base. The goal is to determine opportunities for cooperation.

As described above, given increased demands and needs in the region for TVE training, R/D, TA/Consultancy; collaboration and linkage is a must to provide increased, improved, varied assistance from CPSC and other resources on tech/voc education. Beyond monetary implications, which is of course basic, opportunities for collaboration are tremendous.

On the other hand, CPSC donor agencies are questioning their own capability to continue supporting CPSC in light of changing priorities and growing competition for limited resources.

CPSC as a training institution with a unique role in TVE is in a strong position to attact resources and partnerships. Many successful models in cost-shared trainings exist.

While funds may be sufficient to maintain current level of services, CPSC should vigilantly pursue opportunities to expand its resources to take on new tracks and activities.

Opportunities should not be ignored to enhance CPSC capability to improve its performance towards fulfilling its vision as a regional resource center of excellence in technician education and training and as " capability-builder."

Recommendations :

1) CPSC should maintain regular contact, aggressively pursue formalized strengthened collaborations with regional/ international training institutions and programs like APSDEP, ROAP, VOC/TECH - SEAMEO ,Asian Development Bank, etc.

2) CPSC should provide continued orientation, update to new heads of national TVETs, ministries, institutions (regional and international) to maintain visibility and motivate continued support to the College.

3) CPSC should revitalize its information function. The CPSC Regional Information Center for Technician Education should be strengthened and tasked to develop strategies for evolving a more dynamic information clearinghouse and more expanded information dissemination capability.

4) It is recommended that the following opportunities in linkaging with private sector/industries and with donor agencies be considered.

Opportunities for Donor Agencies: -

Technical assistance for any of the following

- o Strengthening of R/D Unit and Services of CPSC
- o Revitalization of CPSC Regional Information Center including set-up of info dissemination facilities.
- o Establishment of computer data-base of accredited TVET consultants and TVET institutions.
- o Set-up of accreditation system of consultants and institutions; and actual accreditation of a desired number.
- o Development of CPSC Manual of Operating Procedures
- o Continued funding of training courses, consultancy services, research and development projects

- Instructional materials development and upgrading; training resource materials development, printing and dissemination.

- Library and equipment upgrading

- CPSC consultancy for institutional capability-building of TVET institutions.

Opportunities for /With Private Sector/Industry:

- Catalyze scholarship programs in tech/voc high schools, junior colleges, and/or college/universities.

- Create professorial chairs in technical colleges and institutes.

- Organize the top 100 or so corporations in the countries and motivate them to increase involvement in TVET albeit in supporting training programs, building training centers or institutes, etc.

- Encourage private sector/industries to expand school-to-job trainings like apprenticeships and internships.

- Recruit corporate managers and supervisors as tech/voc faculty or instructors.

- Advocate for increase of in-plant training programs.

- Partner with private sector/industry training institutions in conducting training courses and use of their facilities and instructors.

- Create or strengthen advisory Boards and Councils with private sector/industry representative.

- Source out project grants from foundations of big corporations - for special training courses, research projects, materials production especially in local language.

- Explore tech/voc training tax or levy models for more and organized private sector involvement as practiced in Korea or Japan and some western countries.

B.5 On Technical Assistance / Consultancy (TA/C)

The goal for this key result area is . "expanded technical assistance services to the private sector and other related publics".

Findings and Conclusions:

Consultancy/technical assistance is one of the more actively provided services to member countries by the College. CPSC technical assistance has taken various forms: 1) joint ventures in training and research: 2) provision of instructional and training resource materials from the CPSC Regional Information Center for Technician Education: 3) institutional-design and capability-building assistance: 4) advisory services. In the next five years, CPSC members expect the College to continue as a provider of technical assistance: and/or a catalyzer of assistance to member countries in need.

Respondents rated CPSC capability from low to satisfactory on this key result area. CPSC has ably responded to consultancy requests to some extent. However the projected expanded TVET demands, new technologies, the growing desire of member countries to eventually be self-reliant: more consultant services will be required in the region in the next five years.

Much of CPSC's technical assistance has been to ministries and TVET institutions for capability-building. Technical assistance to this sector should certainly continue. If CPSC is unable to provide direct service, it should catalyze consultancy services to countries in need.

An exciting possibility in this key result area is the opportunity to collaborate with the private/industry sector. Respondents from business and industry stated their need for TA/C and are willing to pay for services. On the other hand, TA/C from the private sector to CPSC and/or member countries is also an opportunity which should be explored further. These are major thrusts to pursue considering the financial benefits to the College if collaboration with private sector/industry can be organized.

In the last so many years, some member countries received bilateral technical assistance for TVET from UNDP/ILO, ADB, USAID and other international and regional donor organizations. Some countries expressed need for CPSC assistance/support in developing concerted TA/Cs from donor agencies and in facilitating delivery of technical assistance from donors. CPSC cultural sensitivity to member country needs and nuances has been a plus factor.

Short-term consultancies have been beneficial to member countries: however respondents project that long-term TA/Cs increase likelihood of skills transfer and production of outputs. Four countries specifically suggested long term engagements if CPSC resources will allow.

Again member countries foresee TA/C needs in different areas. They are requesting for a computerized data-base of TVET experts and consultants in the region and international.

Recommendations:

1) CPSC should strengthen its capability for more vigorous consultancy services to member countries. It must strengthen collaboration with related institutions like VOC/TECH -SEAMEO, APSDEP, ROAP, IIEP , and others to provide improved technical assistance services.

2) CPSC must aggressively explore opportunities for TA/C to private sector/industries, other countries as a contractor of consultant services. Revenue potentials for the College can include: cost-sharing or country-sponsorship of training programs, accreditation and deputization of capable consultants and institutions, "big brothering", direct marketing of CPSC services (publications, consultancy, conduct of technology fairs promotions), exchange programs.

3) CPSC should serve as catalyzer and advocate for TA/C in TVET in the region. Where practical, it should assist donors in delivery of TA/C.

4) CPSC should examine the pros and cons of long term consultancy as opposed to short-term; and provide services at a duration which will ensure transfer of technology or production of outputs.

5) CPSC in consultation with member countries should identify, prioritize and plan country-specific technical assistance and consultancy services.

6) CPSC should develop a computerized data bank of TVET experts/consultants in the region and internationally, which should then be shared with member countries.

For a matrixed summary of the findings, conclusions and recommendations given above, refer to Annex D - Major Findings and Recommendations on CPSC Capability.

III. Summary of Findings and Recommendations

On Technical/Vocational Education and Training in the Seven Respondent Countries

The following section contains country reports which briefly describe the data-gathering process, emerging trends and needs, and the state of TVETs in the seven respondent countries.

As mentioned earlier in this report, member countries have unique development thrusts, varying technological growth levels and directions; as well as different priority needs in the five key result areas. On the other hand, the countries also expressed recurring universal themes for capability-building and for self-reliance. In addition, there is strong motivation to pursue continued positive growth and improvement of TVETs in the respective countries.

The Project Contractor summarized and analyzed information and opinions gathered from interviews, focused group meetings, filled questionnaires and various institutional brochures. The country reports describe to a certain extent, the state of TVETs in Bangladesh, Korea, Nepal, Pakistan, Papua New Guinea, Philippines and Thailand.

KOREA SUMMARY

1. BACKGROUND

1.2 Scope

An ARMDEV Research Specialist spent four days in Seoul, South Korea to gather data for this study. Interviews were conducted in Seoul, Inchon, Kyungki-Do and the Government Center in Gwacheon.

The Ministry of Science and Technology (MOST), Technology Cooperation Division II arranged with care and efficiency all appointments. Among respondents from the public sector were Directors and Deputy Directors from the Ministry of Labor (MOL) including the Korea Manpower Agency (KMA), the Inchon Industrial Masters' College and the Seoul Institute for Vocational Training in Advanced Technology (SIVAT); MOST; Ministry of Education; Ministry of Environment; and, Ministry of Political Affairs. The private sector included Executive Directors and PLanning Officers from the Korea Industrial Technology Association (KITA), IBM Korea Co., LTD and Samsung Advanced Technology Training Institute.

Sampling of the study included the following:

CATEGORY	NUMBER
CPSC Alumni	9
Policy-makers who are Non CPSC Alumni	5
Technician graduates and graduating students	0
Private business/industry	8

1.2 Limitations

Sampling was small due to time and budgetary constraints. The English language was not a major constraint because most respondents spoke the language, and/or someone was always available to act as interpreter when needed. However, few suggestions and recommendations were given by the respondents during the interviews and in writing via the questionnaires. Filling-up the questionnaires was a big problem. A majority opted to fill the questionnaires after the interview and promised to send them to CPSC. As of this writing, only nine have been collected. Observations and statements contained in this report were gathered from these nine questionnaires and from notes taken during interviews, brochures and all other materials gathered from CPSC, the Korean Embassy in Manila and from institutions visited.

2. EMERGING TRENDS, FUTURE NEEDS, CHANGES/DEMANDS

The 21st century will see a world centered around highly sophisticated information-related technology. South Korea has prepared itself for the new age and aims to be on the leading edge by pursuing high technology development as its top priority. Since 1988, the Korean economy has maintained an average GNP growth rate of 9% annually, the 10th in the world. This was made possible by transformation from subsistence agriculture to modern manufacturing. The government has energetically promoted a "technology-first" policy aimed at converting the country's industrial structure away from a labor and skill-intensive one into a technology-intensive structure like those of the industrialized countries. The policy called for the elevation of Korea's technological level through a positive technology development program and the boosting of the nation's competitive edge in the international market by turning out products of improved quality and heightened value-added.

Korea's comparative advantage is planned on five areas. The first area consists of information technology and automation, fine chemicals, automobiles and textiles. The second covers new materials, biotechnology, nuclear power, energy, resources and foods. Group three consists of public welfare technologies related to health and environment and others. In group four are marine, aviation, and space development. And finally, basic areas like research, standardization, systems engineering and project administration skills are in group five.

To pursue its goal of economic and technology supremacy in the region, Korea boldly embarked on an aggressive economic development program in 1962. Under the policy aimed at modernization and attainment of a self-supporting economy, the first (1962-1966),second (1967-1971), third (1972-76), fourth (1977-1981), fifth (1982-1986) five-year economic development plans were successfully implemented. Overall target was to raise GNP growth to at least 9% per annum.

In order to increase employment opportunities, policies have concentrated so far on the development of skilled labor intensive industries and on increasing scientifically and technically-oriented manpower through expansion of vocational and technical training. More vocational schools and classes were opened. Moreover, with a view of expanding short-term higher educational institutions for the training of specialized workers, more junior colleges were built and some vocational schools were transformed to vocational junior colleges.

At the same time, by legislative action, emphasis has shifted from mainly government provided vocational programs to in-house training by industries. In-plant vocational trainings are required of enterprises which employ 200 persons or more in the fields of manufacturing, electricity, gas and waterworks, construction, transportation, warehouse and communication and

services. If enterprises which are obligated by law to provide these trainings have no capability to do so, they pay a training levy to the government. As a result of this policy, 296 vocational training institutes have been organized by end of 1991. To encourage in-house training, the tax system was revamped to provide tax favors for the purchase of equipment and other expenses. Efforts have also been made to improve the quality of teachers including the upward readjustment of teachers' salaries and improvement of the curricula.

Manpower formation in the Republic of Korea is the responsibility of three ministries: Ministry of Education through a school education process, the Ministry of Science and Technology for advanced scientific and technical manpower, and the Ministry of Labor for vocational training. The school system offers opportunities starting from high school. Vocational high schools are of eight types: agricultural, technical, commercial, fishery and maritime. The common denominator of their curricula is liberal education which provides the foundation for specialization.

The government has provided incentives to increase enrollment in vocational education. Apart from financial support, the principal of a vocational high school enjoys a greater degree of autonomy in recruiting students. Within the policy framework, he is allowed to make decisions between student achievement in high school and test scores as the basis for determining eligibility.

Moreover, Junior Vocational Colleges aimed to produce middle-level technicians equipped with theoretical expertise and skills in combination have increased. Their specialized courses are grouped into technical, agricultural, nursing, fishery, and sanitation, commercial and business, home economics, arts and athletics.

School-industry cooperation has been fairly good. It facilitates the exchange of technological and industrial information, enlarges opportunities for on-the-job training, employment, and joint research. Since 1983, this has spawned 376 cooperative committees in various fields of study.

The Ministry of Labor provides vocational training "to improve worker's social and economic status and to contribute to the national economic development by providing workers with the opportunity to learn or up-grade abilities required for their works." Courses for workers range from basic training, upgrade training, job conversion training and retraining. There are also training courses for instructors. By type, vocational training fall in three categories: 1) public training provided by the Korea Manpower Agency, the Central Government and the Local governments: 2) in-plant training provided by industries: 3) and, authorized training provided by accredited non-governmental/ private institutions.

3. MAJOR FINDINGS AND RECOMMENDATIONS REGARDING TVET IN KOREA

3.1 On Organization and Management Capability (OMC)

Finding/s	Conclusion/s	Recommendation/s
Respondents felt that efficiency of administrative support and management capability is one of the many strenghts of the TVET Directorate in Korea.	It must be noted that in Korea, technical/vocational education and training are the responsibility of three government agencies - MOE, MOST, and MOL. Each has a role to play which is quite clear in all to all major players.	
Interview comments included the desire among TVET administrators to enrich management skills especially among senior and middle level officers. Since the passage of the tech/voc law and the policy of government to make technical/voc training a top priority, the corresponding structure in the three ministries MOL, MOE & MOST were put in place. However, personnel changes do occur. While some administrators and Directors may be well-prepared, others lack needed skills to effectively manage TVET colleges, institutes and polytechnics.	There is a "contagious" drive in Korea to excel in science and technology: to be among the top ten Technologically - advanced countries in the world. So, the desire to be better than what is being done now pervades public and private sector thinking.	Regardless of the more advanced state of TVET in Korea, the country recommends that that continued capability-building on organization and management of TVET programs and institutions be made available to senior and middle level TVET officers.
The CPSC Liason Officer in Korea is with the Ministry of Science and Technology. It is considered the most appropriate host agency. However, MOL and MOE do not receive direct communication from CPSC and therefore hear about CPSC courses very late, often times only one or two weeks prior to the start of the course. This does not leave much lead time for recruitment of the right participants.	The communication system between CPSC and the Liason Office, between the Liason Office and the two other Ministries need to be examined. Moreover, the bottleneck could be in country or in the course planning and information time-table of CPSC.	CPSC should examine its course planning and field notification system if the current practice allows for reasonable lead time. Current communication channels between CPSC and Korea must be examined for its efficiency. It may be more effective to send communication to all three agencies: Ministries of Labor, Science, Technology and Education.
TVET Directors and Administrators are appointed, retire, resign or change. Knowledge about CPSC is not always known to decision makers.		CPSC Officers must on a regular basis provide orientation and update information to new TVET Directors and policy-makers regarding CPSC and its services. This will maintain visibility of the organization in the country and may motivate closer collaboration and more support.

3.2 On Training and Curriculum Development

3.2.1 National Training Capability

Finding/s	Conclusion/s	Recommendation/s
60% of respondents rated the technical/ vocational programs in the country to be low in relevance to training designs to current country needs,adequacy of training facilities, quality of trainors and use of distance study modules. Only one respondent positively rated quality, quantity, practicality, methodology of country TVET's as very high. See Table 1.	The low rating is indicative of the tremendous push for advancement and sophistication in training capability in the country. The Korean technical and vocational education (formal and informal) is one of the more sophisticated models which combines government and private sector initiative. While the collaboration is formalized, implementation of private sector/industry participation is still found wanting.	Korean Ministries of Labor, Education and Science and Technology know best how to improve quality and quantity of TVET in country. Continued campaign for private sector cooperation is necessary.

3.2.2 CPSC Training Courses

Finding/s	Conclusion/s	Recommendation/s
About 80% considered Regional CPSC courses generally helpful especially to middle level TVET officers. However two alumni commented some courses were not well organized, were boring, and generally fell short of participants' expectations. Respondents observed CPSC trainings to have been low on practicality methodology, trainings materials and facilities. Three felt that use of distance study modules was high. Everyone agreed that females should have equal access to CPSC trainings as male participants.	The nine alumni interviewed expressed positive benefits from CPSC regional trainings and some suggestions for improvement. It is noteworthy that Korea with its model technical education and training programs look to CPSC as a resource for continued enhancement of its own TVET. CPSC still enjoys credibility as a resource for technician education.	Korea recommends that core courses on tech/ voc teacher skills enrichment such as instructional materials development, research and development methods, how to strengthen cooperation with industry and private sector to improve school-to-work connection should continue to be made available by CPSC and other related agencies. Training on emerging needs, i.e. high technology, automation, environmental technology and women in development among others should be conducted in-country and made available to as many TVET officers and faculty as can be accommodated. Korean respondents recommend the following priority topics (by order of frequency): research/development methods and techniques, entrepreneurship and small-scale business, training of trainors, environmental education, women in development, staff development, manpower planning, module development and evaluation and competency-based technical education.

3.3 On Research and Development

Finding/s	Conclusion/s	Recommendation/s
Majority of the interviewees rated the country's TVET to be average or slightly above average in research and development activities, in dissemination of research outputs and in overall capability for research and development.	Research and development seems to be low in the order TVET priorities. However, everyone expressed the need for expanded research activities; & for more funding in this direction. Vocational training in Korea is basically a training and education service. Research and development activities undertaken are on topics which impact policy directions.	Korea TVET Directorate should strengthen and sustain current research and development programs which can provide much - needed leadership and modelling in the region. Topics which should be researched include among others computer application, environmental education, women in development, curriculum development and agriculture education technology.
Some respondents expressed the need for regular periodic information regarding research projects and results conducted by Korean tech/ voc institutions, CPSC and elsewhere.		A mechanism for collecting and disseminating research results especially on science and technology should be explored. It was suggested that Korea offer tax benefits to companies which are willing to provide research and development grants to TVET institutions in the country.
Survey and research projects have been undertaken and are planned. For 1993, planned among others are: 1)the vocational training investment and basic direction of the policies for vocational training; 2)research of training system and supplementary education system of trainers; 3) method of utilization of enterprise information.		Suggested which should be research subjects include among others computer application, environmental education,women in dev't., curriculum development and agriculture education technology.

3.4 On Consultancy and Technical Assistance

Finding/s	Conclusion/s	Recommendation/s
From orientations given by Korean tech/voc institutions to the Research Specialist it appears that Korea has been doing and continues to be a source of numerous technical assistance/consultancy services to other countries not only in the Colombo Plan region but worldwide. Due to Korea's place among the top ten economic giants of the world, it has developed technical and scientific expertise equal to any of the western industrialized countries. Within Korea are world - class technical education facilities with up-to-date equipment and curricula. These facilities can be used as training resources for other Colombo Plan member countries. Government and private sector directors interviewed for this study expressed willingness to share their resources with CPSC and member countries. Korea looks to Japan and western countries as major technology resources.	Korea is more than able and willing to provide technical assistance to other countries. It has committed itself-through KOICA, to development support.	With KOICA as the coordinating body, Korea expertise can be effectively shared through a vigorous consultancy/technical assistance program. Korea should collaborate with CPSC in developing a data bank of experts/consultants and accredited tech/voc institutions in the region which should then be shared with other countries. This is one other funding or staff assistance.
On the other hand while Korea may be justifiably more advanced than other countries in the region, respondents said it needs continued outside inputs especially on higher technology. It still needs capability-building services from international organizations like CPSC. There are existing bilateral and international cooperation to offer and to receive technical assistance for equipment, experts and scholarship.	Korea considers CPSC and other international organizations as a major resource for tech/voc and technician education. It also recognizes its shortcomings and seriously wants to improve and remain competitive.	The Ministry of Labour, Education, Science and Technology have already strategic plans on this KRA.

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3.5 On Linkaging/Networking and Expanding the Resource Base

Finding/s	Conclusion/s	Recommendation/s
Korea is a world leader in institution-industry networking because it legislated direct involvement of industry in vocation training. As described earlier the Basic Law for Vocational Training require industries with 200 and more employees to set-up in-plant vocational training facilities/capability. Those unable to provide the training through technical and vocational institute of the government. While this may be good on paper, the impact of the Basic law for Vocational Training has yet to be determined. One of the research projects planned in 1993 is to study the effects of the law.	In many western countries and in Japan the model of legally binding industry and business to support vocational education and training have been effective. Korea is following these successful models. There may be problems in some aspects of the Tech/Voc training levy and tax incentives provisions but it remains a major contributor to trained manpower in Korea. KITA and several other similar organizations are critical government partners. The success of TVET policies such as practical in Korea will be determined mainly by the linkages & networks developed.	Korea still needs to aggressively campaign among small and medium scale industries to cooperate in the implementation of the Basic Law for Vocational Training.
Linkage and Networking was rated high or very high by the respondents in all aspects with private sector, member countries, related TECH/VOC organization, international and regional agencies. Several cooperative agreements especially with Germany, Japan, Belguim and Indonesia have supported TVET in Korea and in other countries.	Korea is changing its relationship from a receiving country to a donor country. It is linking and networking to pursue international cooperation.	Korea will continue to need inputs from outside resources. It should maintain visibility and formal relationships with regional and international agencies which share the goal of furthering technical/vocational education and training. Respondents recommend closer linkage especially with Japan which is the most technically advanced in the region and also the biggest donor country. Institutions and organizations like the Korea Industrial Technology Associations the Korea Manpower Agency and the Seoul Institute for Vocational Training (SIVAT) should be encouraged to share their expertise and resources.

Table 1. Korea: Policy-Maker's Perception of Country's Training/Teacher Education and Technology Transfer Capability

N = 5

ASPECTS	LOW 1 f	2 f	3 f	HIGH 4 f	AVE. RES-PONSE
Relevance of Training designs to current needs	1	3	2	0	2.0
Relevance of training to position of trainee	0	2	3	0	2.6
Quality of training programs	0	0	2	3	3.6
Quantity of training programs	0	0	0	1	4.0
Practical application of training undertaken	0	0	0	1	4.0
Training methodology	0	0	0	1	4.0
Training Material	0	0	1	0	3.0
Adequacy of training facilities	1	3	1	0	2.0
Quality of Trainors	0	4	1	0	2.2
Use of distance study modules	1	2	0	0	1.6

NOTE: Respondents did not rate every aspect. Only 5 respondents answered this portion of the questionnaire.

Table 2. KOREA: Policy-makers Projected Priority Training Needs on 1993 - 1997

N = 4

N E E D S	Number of Respondents
Management of TVE Institutions	1
Curriculum Development and Evaluation	1
Instructional Design and Methodology	0
Research and Development Methods and Techniques	4
Environmental Education	2
Entrepreneurship and Small-Scale Business	3
Women and Development	2
Computer Applications	1
Staff Development/HRD	2
Agriculture Education Technology and Management	2
Manpower Planning	2
Training of Trainors	3
Module Development and Evaluation	2
DACUM (Developing a Curriculum)	1
Competency-Based Technician Education (CBTE)	2
Human Behavior in Technician Institutions	1
High Technology	1

Only 4 respondents filled this portion of the questionnaire

Table 3. Korea: CPSC Alumni Respondents' Level of Satisfaction on TVE

N = 4

ASPECTS	LOW 1 f	2 f	3 f	HIGH 4 f	AVE. RES-PONSE
Efficiency of institutional administration and supervision	0	2	2	0	2.5
Adaptability of TVE management to change and to innovate	0	2	1	0	2.33
Requisite quality of teaching staff	0	1	2	0	2.66
Responsiveness of the TVE curriculum to current and changing requirements of industry and the labour market	0	3	0	0	2.0
Adequacy of facilities and equipment	0	3	1	0	2.25
Resourcefulness of the TVE institutions to generate income and become self-reliant	1	2	1	0	2.75
Attractiveness of TVE institutions to secondary school graduates	0	1	2	0	2.66
Employability of TVE graduates	0	0	3	0	3.0
Effectiveness of Institution-Industry Cooperation	0	2	1	0	2.33
OVERALL AVERAGE					2.50

Table 4. Korea: Dept. of Labour/TVE Directors' and Heads' Perceptions on the Country's TVE capability in Various Services

N = 4

ASPECTS	LOW 1	2	3	HIGH 4	AVE. RES-PONSE
Research and Development Adequacy of research activities	0	2	2	0	2.5
Adequacy of development activities	0	1	2	1	3.0
Usefulness of R and D outputs	0	2	1	1	2.75
Dissemination of R and D outputs	0	2	1	1	2.75
Capability for R and D (Only 2 responded)	0	2	0	0	2.0
Overall Average					2.75
Networking (Linkaging) Linkage with private sector (Only 2 responded)	0	0	1	1	3.5
Linkage with training centers in member countries	0	1	2	1	3.0
Relationship with APSDEP, ILO INNOTECH, etc.	0	0	2	2	3.5
Networking with international organizations	0	0	2	2	3.5
Capability to attract collaborators	0	0	2	2	3.5
Overall Average					3.5

PAPUA NEW GUINEA
SUMMARY

1. BACKGROUND, SCOPE AND LIMITATIONS

The Assistant Coordinator of the USAID-CPSC CorPlan Project was sent to Papua New Guinea for five days to gather field data on the country's tech/voc educational systems. Due to serious budgetary and time limitations plus the inaccessibility of the provinces to land transportation, field level data collection among public officials, CPSC alumni, technician graduating students/graduates and some private sector respondents was concentrated in **Port Moresby.** Practical considerations limited the study to agencies within the National Capital District. All observations concerning industries in the provinces of **Lae** and **Madang** were collected by a core faculty seconded by JICA as part of JICA's contribution to the CorPlanning project. Sampling of the study included the following:

Respondents	Number
CPSC Alumni	13
Non-CPSC Alumni	8
Technician graduates and graduating students	9
Industry	4
TOTAL	**34**

Interview appointments were efficiently arranged by the Department of Education (particulary the office of Resource Management, Technical Division) with respondents from both public and private sectors including the Secretary and Assistant Secretaries of Education and section chiefs; Deputy Secretary of the Department of Labour and Employment; Assistant Secretary of Trade and Industry; Director of National Training Center of the Department of Works; Presidents of the Chambers of Commerce and Industry, Mines and Petroleum; Director of Small Scale Industries; Principal, Department Heads, graduates and students of Port Moresby, Lae and Madang Technical Colleges; and Rector, Don Bosco Technical School.

2. EMERGING TRENDS, FUTURE NEEDS/CHANGES/DEMANDS

In the past 5 - 10 years, PNG was foreign driven, more service oriented and basically agriculture exporting major produce like coffee, cocoa, copra and timber. Major strides on mining will continue to be the trend for the next five years. The passage of the New Mining Act through Parliament, the pouring of one million ounces of gold at Porgera and the opening of the mining school at Unitech are just but a few signs of the industry's great potential.

The need for more access roads has made construction industry progress strongly; thus the need for technician skills on civil construction work for PNG's resource industries is predicted to increase in the years to come.

Agricultural production and processing (cannery) will still be a major economic direction for the country. New technologies in production, manufacturing, and exporting of marine products will require new technician skills.

Politically, PNG clamors for localization of all sectors. Many believe that PNG should try it her way and that too much reliance has been placed on foreign "expert advisors" in negotiating current resource developments. There will be changes, and rightly so.

Key respondents are predicting that in the next 5 years, there will be increased concern for continued expansion of mining and forestry, agricultural production and processing; increased development in civil construction, manufacturing, and tourism industries. All these require upgraded, reoriented and/or improved technical skills in all fields of engineering and TVE; increased technology application including automation and computers in all sectors; improved management skills and increased participation of women in technical/vocational labour market.

Specifically, PNG needs to expand its TVE capabilities to include emerging requirements of industry, build adequate facilities, train teachers, develop research and development projects, develop new curricula and instructional materials, explore opportunities for more linkage and networking both with the public and private/industry sectors, and evolve strategies for increasing its funding base.

3. MAJOR FINDINGS AND RECOMMENDATIONS REGARDING TVET IN PNG

3.1 On Organization and Management Capability (OMC)

Finding/s	Conclusion/s	Recommendation/s
Table 1 indicates respondents' slight satisfaction over PNG TVET Directorate's OMC (overall average = 2.2). The overall average of TVE institutions as rated by technician graduating students and graduates is low (1.7) bringing attention to ratings of 1.8 for efficiency of vocational guidance and placement services; 1.2 for library services; 1.4 for resource learning centers; and 1.6 for physical infrastructure. (See Table 3.1)	Emerging growth areas in new technologies, institution-building capabilities will heap additional administrative, resource and direction-setting demands on the TVET structure.	National TVET Directorate will be challenged to develop new courses to meet requirements of the economic thrust of the country. While it is capable of managing the current level and scope of services, the expansion will stretch the ministry and TVET institutions to the limit. Current leadership will need assistance to face new challenges in program and curriculum development, upgrading technology capability liaising with government and private sector/ industry for support and added funding.
Senior and middle level TVET Officers have benefited from CPSC and other training programs. Their capability to organize and manage institutional TVETs have been enhanced and strengthened although still needs improvement.	Continued training of senior and middle level TVET educators and administrators is a must. PNG is looking to CPSC and related institutions to assist capability-building.	Create and develop a National Training Council with which CPSC can collaborate to support PNG's desire to improve its TVET programme and services. Continue to provide training opportunities to senior and middle-level TVET officers.

3.2 On Training Services and Curriculum Development

Finding/s	Conclusion/s	Recommendation/s
Current TVET training capability was rated from low to high on several performance areas. (See Table 2). Respondents rated the following as satisfactory: relevance of training to needs and position of trainees; quality of training programs; practical application of training; and training methods and materials. The following aspects were rated low: adequacy of training facilities; process of training, quality of training programmes and instruction; and use of distance study modules. Some programs (i.e. PETT, apprenticeship, extension courses, distance study) are insufficient due to lack of funding, support, quality of personnel and continued traditional orientation. Private sector respondents expressed dissatisfaction on the quality and preparation of voc/ tech graduates. A lot of training is still required and done in-house to provide adequate skills.	Obviously, TVET in PNG is in a state of flux as new demands brought about by emerging technologies, increasing need for skilled manpower because of diversification and continued economic growth come about. Training services in quality and quantity must catch-up with demands and needs. Areas for improvement in this key result area is tremendous. For PNG to succeed in improving its tech/voc training and education programs and services, it must get full support from government as well as from the private/ industry sector.	National TVET Directorate Officers must monitor planning and implementation of formal TVETs to provide adequate direction in implementation strategies. TVET officers should continue to make representations with appropriate ministries for adequate financial support of TVETs.

Finding/s	Conclusion/s	Recommendation/s
The following aspects were rated low: quality of trainors (ave.= 1.9); quantity of training programmes (ave.= 2.1). Refer to Table 2. Training materials were perceived to be not so appropriate, adequate and updated (overall average - 2.3) Refer to Table 3.2 Responsiveness of curricular offerings to country needs was rated high with an ave.=3.3 (See Table 3.1). However, adequacy of shop courses and type of teaching methods were rated low (1.6 and 1.8 respectively). It is a matter of catch-up in terms of the number of teachers, their training competence and their knowledge and skills about new technologies.	Teaching competencies and curriculum need upgrading.	Assess current teaching staff skills and plan appropriate training. Explore the possibility of engaging experts from industry to conduct inservice training for teachers or act as consultants during inservice training. For TVET to explore an incentive system to encourage more students to become TVET teachers and to maintain those already in the system.
One of the most critical issues facing TVET in PNG is keeping pace with rapidly changing technology and generating relevant curricula. New or updated curricula affect content, teaching aids, and facilities. Shortage of suitable learning materials (Table 3.2) for the students in polytechnics and technical colleges, inadequate equipment, facilities and financial resources are equally serious problems (Table 2).	Facilities, equipment, apparatus and learning resources are basic "hardware" in TVET. The quality of training programs is directly influenced by availability of these requisites.	To determine directions required in curricula innovation, a thorough analysis of current documents is essential. Planning is a crucial stage and essential before action can be planned. Develop new instructional and resource materials, improve those existing. The country could seek outside funding for this special project.
Training in emerging technologies in mining, civil construction, agriculture production and processing and others are not currently offered in most TVET institution programmes. Skilled and semi - skilled technicians are needed by these industries.	There is a need for TVET programmes to include development of courses in new technologies to build its manpower capability and to meet industrial demands.	TVET Directorate should scan new technologies in the country and plan (identify and prioritize) focus of growth in the next five years. The Directorate must catalyze development of training programmes, curricula and instructional materials for priority growth areas.
Well qualified and experienced tech/voc instructors are inadequate in number vis a vis the demand. There is difficulty in retaining well trained & qualified teachers in the system because private sector employment is much more attractive especially among engineers.		Provide staff development opportunities to teachers already in the system so that their capabilities could be improved and in turn improve the effectiveness of the TVET system. Emphasize training that will respond to the needs of industries.

Finding/s	Conclusion/s	Recommendation/s
Due to geographic spread and lack of infrastructure in the country, access to formal school facilities is difficult for some students. More youth are interested in tech/ voc careers if they can only be trained.		Develop correspondent type courses which can be accredited in technical colleges or universities. A corollary to this, develop a comprehensive training program on distance study approaches open to both private and pubiic sectors.
The following were listed by the respondents as the current needs in training: development of competencies/skills, upgrading of courses, institution building, and courses in emerging technologies.		Incorporate training needs identified in the training programs.

3.3 On Research and Development

Finding/s	Conclusion/s	Recommendation/s
This is a major growth area in the next five years. Current capability in the country is rated low (overall ave.= 1.6; Table 4)	The country needs assistance in accessing funding support for studies and in the dissemination of research outputs. There is little activity in this KRA.	TVET directorate must continue to catalyze internal research projects relevant to needs of the system. In collaboration with CPSC, plan country - specific research and development program for the next five years.
Some local TVET institutions are interested in doing research based at their institutions with direct applicability to country plans and programs. They look to CPSC for technical assistance. Respondents identified the following topics as research priorities; tracer studies for graduates, employment, training and employment market, training needs of industries, curriculum design; development and evaluation of programmes; and impact study of training.		Explore opportunities for institution-based training and plan in collaboration with CPSC Research Unit, how best to implement the projects; and most importantly, where financial resources can be sought. Request CPSC to base competent Research and Development Officers in member countries.

3.4 On Technical Assistance/Consultancy

Finding/s	Conclusion/s	Recommendation/s
As can be deduced from other key result areas, PNG TVET has varied needs for technical assistance. The desire to produce outputs from consultancy engagements require long-term engagement in the country.		TVET Directorate determine priority needs for technical assistance. It may seek help from CPSC in sourcing funds and consultants.
Respondents identified the following opportunities for consultancy services: instructional management, research and development, methods and techniques, curriculum development, manpower training and staff development, and development of entrepreneurial skills. PNG needs to expand its TVE capabilities to include emerging requirements of industry in mining, civil construction, agricultural production/processing, etc. The system needs to build adequate TVET facilities, train teachers, develop R and D, develop new curriculum and instructional materials and strategies and revise existing ones.	PNG will require assistance in institution building and management.	A more thorough TA/C needs assessment be conducted as an initial step. TVET Research Division should, on a regular basis, scan TVET institutions and programmes.

3.5 On Linkage and Networking and Expanding the Resource Base

Finding/s	Conclusion/s	Recommendation/s
Tech/voc linkage with private sector is weak and unsatisfactory (overall ave.=1.6; Table 4). Cooperation exists through apprenticeship, individual engagement of consultants, and/or extension programs.	Existing linkages are inadequate given the increasing needs for school-industry programmes.	TVET Directorate should continue to plan with the private sector/industries and NGOs direct partnerships especially in OJTs, apprenticeships/internships, training cooperation by providing resource persons or master craftsmen in training pertinent to expertise. Invite private sector/industry representatives in designing curriculum and assistance in identifying local expertise.

Finding/s	Conclusion/s	Recommendation/s
Private sector/industry is willing to expand collaboration with national TVETs. They are willing to second individual experts as course lecturers in educational institutions.		TVET Directorate must continue to explore more innovative strategies to attract closer and more expanded involvement of private sector/industry in the national program. Representatives from the private sector/ industry and if applicable, from NGOs should be included in TVET advisory boards and counsils.
PNG enjoys limited satisfactory linkage with international agencies like the GTZ, ADB and AIDAB. However, a lot more needs to be done (See Table 4). PNG is interested to expand bilateral agreements as funding sources for upgrading curriculum, curriculum materials, equipment, facilities and instructional staff.		Continue regular orientation and contact with regional and international donors.
As described earlier, private sector/industry involvement held much promise and should be aggressively pursued. Models of government policies translated into maximized school-industry connection can be examined (Japan and Korea)	PNG can learn from successful industry TVET school partnership models.	To ensure long - term growth and financial viability of tech/voc in PNG, involve private sector/industry in planning TVET with appointment of private sector/industry representative to College Boards or Curriculum Development Panel Board. Study experiences of countries like Korea and Japan on industry involvement in TVET.
At this stage of educational dev't. in PNG, it has yet to strengthen its own programs, facilities, materials and staff to meet increasing demands of assist the country in TVET. It will be unable to assist in expanding CPSC's resource base except in small measures. It offers use of its university and college facilities and may be able to second experts as resource persons.		

Table 1. CPSC Alumni Respondents' Level of Satisfaction on TVE in PNG

N = 13

ASPECTS	LOW 1 f	2 f	3 f	HIGH 4 f	AVE. RES-PONSE
Efficiency of institutional administration and supervision	1	5	7	0	2.4
Adaptability of TVE management to change and to innovate	1	6	6	0	2.4
Requisite quality of teaching staff	0	6	5	2	2.6
Responsiveness of the TVE curriculum to current and changing requirements of industry and the labour market	1	5	6	1	2.5
Adequacy of facilities and equipment	0	9	3	0	2.0
Resourcefulness of the TVE institutions to generate income and become self-reliant	3	6	2	1	2.0
Attractiveness of TVE institutions to secondary school graduates	2	5	4	1	2.3
Employability of TVE graduates	2	5	3	2	2.4
Effectiveness of Institution-Industry Cooperation	1	6	2	1	1.9
OVERALL AVERAGE					2.27

Table 2. TVE and Dept. of Labour Directors and Heads' Perceptions of the Country's TVET Capability in Training and Technology Transfer

N = 8

ASPECTS	LOW 1 f	2 f	3 f	HIGH 4 f	AVE. RES-PONSE
Relevance of training designs to current needs	0	3	5	0	2.6
Relevance of training to position of trainees	0	4	4	0	2.5
Quality of training programs	1	2	5	0	2.5
Quantity of training programs	1	5	2	0	2.1
Practical application of training undertaken	1	4	3	0	2.2
Training methodology	1	3	4	0	2.4
Training materials	1	3	3	1	2.5
Adequacy of training facilities	2	3	2	0	1.8
Quality of trainors	2	2	3	0	1.9
Use of distance study modules	4	4	0	0	1.5
OVERALL AVERAGE					2.2

Table 3.1 Technician Students and Graduates' Level of Satisfaction on the Country's TVE in Various Aspects

N = 9

ASPECTS	LOW 1 f	2 f	3 f	HIGH 4 f	AVE. RES-PONSE
Curricula Offerings: Responsiveness to country needs	0	2	2	5	3.3
Adequacy of shop courses	4	2	2	0	1.6
Relevance of cognitive/theoretical courses to shop courses	1	2	4	0	2.8
Adaptability to changed and to innovate	1	4	4	2	2.3
Type of teaching methods, facilities and equipment	4	3	1	2	1.8
Usefulness of courses to job requirements	0	3	4	0	2.8
Overall effectiveness of curriculum	1	1	6	1	2.8
OVERALL AVERAGE					2.4
TVE Institutions: Faculty competence and expertise	0	4	5	0	2.6
Efficiency of vocational guidance and placement services	4	3	2	0	1.8
Library services	7	2	0	0	1.2
Resource Learning Centres, if any	6	2	1	0	1.4
Physical apperance of buildings and other structures	6	1	2	0	1.6
OVERALL AVERAGE					1.7

Table 3.2 Tecnician Students' and Graduates Perceptions
About their TVE Training
N = 9

INDICATORS	1				2				3				4			
ASPECTS	1 f	2 f	3 f	4 f	1 f	2 f	3 f	4 f	1 f	2 f	3 f	4 f	1 f	2 f	3 f	4 f
Curriculum Content OVERALL AVERAGE: 2.6	1	1	3	4	1	4	2	2	1	4	1	4				
Process of Training OVERALL AVERAGE: 2.8	2	2	3	2		5	2	2		3	4	2		3		4
Training Materials OVERALL AVERAGE: 2.3	3	2	3	1	3	4		2	1	5	2	1				
On-the-job training/ industry engagement OVERALL AVERAGE: 2.8	1	2	4	2	1		5	3	2	2	5		1	1	4	3

Legend: Using a scale of: 1 - 4

Indicators of Curr. Content:
1 - Theoretical - Theoretical and practical
2 - Does not incorporate - Incorates current trends
3 - Inadequate - Adequate

Process of Training:
1 - Not organized - Organized
2 - Traditional and outdated - Updated and modern
3 - Disjointed and fragmented - Integrated and continuing
4 - Boring - Interesting

Training Materials:
1 - Inappropriate - Appropriate
2 - Inadequate - Adequate
3 - Outdated - Updated

On-the-job Training:
1 - Unsystematic - Systematic
2 - Boring - Interesting
3 - Too short - Too long
4 - Does not provide for practice experience - Provides for practice and experience

Table 4. Dept. of Labour/TVE Directors' and Heads' Persceptions on the Country's TVE capability in Various Services

N = 8

ASPECTS	LOW 1	2	3	HIGH 4	AVE. RES-PONSE
Research and Development ; Adequacy of research activities	3	5	0	0	1.6
Adequacy of development activities	3	5	0	0	1.6
Usefulness of R and D outputs	2	5	1	0	1.8
Dissemination of R and D outputs	3	5	0	0	1.6
Capability for R and D	4	3	1	0	1.6
Overall Average					1.6
Networking (Linkaging) ; Linkage with private sector	4	4	0	0	1.5
Linkage with training centers in member countries	4	4	0	0	1.5
Relationship with APSDEP, ILO INNOTECH, etc.	4	2	2	0	1.8
Networking with international organizations	4	2	2	0	1.8
Capability to attract collaborators	4	1	3	0	1.8
Overall Average					1.6

PHILIPPINES
SUMMARY

1. FRAMEWORK OF THE STUDY

Scope and Limitations

Due to budget and time limitations, the field data collection was limited to Metro Manila. Failure to get through to the selected respondents by telephone was common. There were many instances when the researcher had to proceed directly to the offices of the respondents to set up an appointment and to present the questionnaire. Generally, the respondents were very accommodating and permitted the interview. There were respondents who, although they agreed to an interview, changed the meeting time causing delays.

Sampling of the study included the following:

RESPONDENTS	NUMBER
CPSC alumni	6
Non-CPSC alumni	6
Technician graduates/ graduating students	6
Industry	5

Respondents included the Director, Section Head and Assistant Chief of Curriculum Division of the Bureau of Technical and Vocation Education; Dean, Superintendent, Department Head of Technological University of the Philippines, Marikina Institute of Science and Technology, Don Bosco Technical School and the National Manpower and Youth Council. Private Sector respondents were from Meralco Foundation, Inc., DualTech Training Center, Ionic Circuits and Avon Manufacturing. Technician graduates/graduating students from Don Bosco Technical School and Marikina Institute of Science and Technology were requested to fill questionnaires.

2. EMERGING TRENDS, FUTURE NEEDS/ CHANGES/DEMANDS

Until recently, the Philippine economy was virtually stagnant, registering only one-half of one percent growth in GDP during 1985-89. Efforts to achieve relative stability and seek a fairly satisfactory rate of growth have been stalled by various often-described factors.

But all this is hopefully water under the bridge now. There are encouraging signs that the bad fortune may have been left behind. In 1988 GDP grew nearly 7% over the preceding year.

In 1991 the government was able to bring down the inflation rate from a staggering 17% to less than 9%. The peso has gained some strength against the U.S. dollar . Because less dollars were going out than dollars coming in despite the relaxation in exchange restrictions effected by the monetary Board late last year, the central bank's international reserves have risen to a new high of $5.2 billion as of the end of February 1992.

But probably more significant in the medium term as well as over the long range has been the perceptible improvement in the business climate as a result of last minute efforts by Congress to approve legislation that would pave the way toward more stability through more dependence on tax revenues than on borrowings. Several tax measures recommended by then President Aquino and her financial advisers were approved by Congress. The Philippines got IMF seal of good housekeeping.

Moreover, Congress finally approved the foreign investment act of 1991 to provide new incentives that would make the investment climate more competitive than it has been in the past. Additionally, the landmark legislation, The Local Government Code, was approved with the intent of promoting countryside development and dispersal of industries. Properly implemented by local officials and entrepreneurs, this code gives the local governments more autonomy than they ever enjoyed in the past, and hopes to be an ignition point for countryside development.

Of late, it has become clear that Metro Manila alone cannot continue to be the engine of growth for the country. The other regions will have to enter the scene to keep the economic recovery moving until per capita income is back to the peak it reached in 1981. Regional economic development activities like the Calabarzon area; the transformation of Subic Base into a commercial international port will usher further expansion of business and industry and the inflow of investment in these areas.

The move to break-up traditional monopolies in certain industries including communication has created competition that is providing better services and products to consumers. The creation of the Asian Free Trade Area will open expanded regional markets to the Philippines where the country will be facing stiff international standards of quality.

In the 1992 American Chamber of Commerce in the Philippines audit of 83 American companies in the Philippines, about 39 of these companies espect to invest 15 billion pesos in expansions in the next three years. These 83 companies employ 57,200 and are mainly in manufacturing and processing, finance/insurance, wholesale/resale and services.

The Center for Research and Communications project growth to continue more likely at slower pace. Investments, consumption, and exports will be the driving factors. However, the relative importance of these factors will change, as the economy moves from a consumption-led into an investment-led growth.

Given the scenario just described, manpower requirements are expected to change in the next five years. Regional development centers will create a demand for semi-skilled and skilled technicians in various fields of technology. The higher quality standards of the international markets will require upgraded technician skills.

To propel the Philippines into a desired NIC state by the year 2000; and to meet emerging needs, the tech/voc institutions will be required to expand training center facilities, train more tech/voc instructors and trainors, and work closely with private businesses to encourage more in-plant training programs.

Respondents feel that the current TVET programs are not sufficient to produce the number of graduates required by the business and government sectors; nor are the TVETs equipped to provide adequate training. Moreover, there is a perceived mismatch between demands and the type of technicians produced.

The country suffers from a shortage of workers with basic and appropriate skills due mainly to insufficient opportunities for upgrading enterprise-based trainings. The demand is exacerbated by the entry of new technologies in manufacturing and processing; and by the brain and brawn-drain which is bleeding the country of valuable trained semi-skilled, skilled technicians.

They focus short-term of TVET programs include manpower development in eight identified industries and economic priority areas, widening access to technical schools, entrepreneurship development towards poverty alleviation, matching manpower supply with demand, and more effective instructional delivery systems.(Report - Consultative meeting on Corporate Planning and Networking)

Technical and vocational education in the Philippines today is focused on competency skills for the requirement of manufacturing, entrepreurship and self-employment, and the needs of the service industries.

3.0 MAJOR FINDINGS AND RECOMMENDATIONS REGARDING TVET IN THE PHILIPPINES

Finding/s	Conclusion/s	Recommendation/s
3.1 On Organization and Management Respondents indicate that the efficiency of institutional administration and supervision of TVET in the Philippines is high. On the other hand a poor rating was given to the following: adequacy of facilities and equipment, and resourcefulness of the TVET institutions to generate income and become self-reliant. Technician education and training in the Philippines include short-term courses, one-year courses, two-year courses, three-year courses, non-formal or evening courses, school and industry programs and outreach programs. Private sector respondents rated Tech/Voc Management capability to be satisfactory. However, low rating were given to adaptability to change and to innovate responsiveness of programs and resourcefulness to increase funding base. There is gut level observation that to some extent TVET offerings mismatch the needs of of industries in the country. Many workers take tech/voc training in preparation for overseas work leaving the country with lack of skilled and semi-skilled technicians.	Policy makers, CPSC alumni and Technician respondents hold high regard for management skills of TVET Director, in the country. However, curriculum and innovative programs need upgrading.	TVET Directorate should continue consulting with industry in order to provide relevant TVET for the country. TVET Directorate should review its strategic plan- goals and programs annually to keep track of achieving the vision to reach NIC' status by year 200.

3.2 On Training and Curriculum Development

Finding/s	Conclusion/s	Recommendation/s
Tech/Voc education offered by the DECS, Bureau of Technical and Vocational Education covers five main fields : trade (technology communication, electronics, computer, transportation, etc.), agriculture,fisheries, home industries, non - traditional courses. These programs are felt to be insufficient due to inadequate high technology tools and equipment, lack of instructional materials and low funding from the government. Quality manpower and trainors are attracted to work outside of the country for economic reasons. TVET training capability is rated to be generally low (by CPSC Alumni and policy-makers) particulary in the following: training materials, use of distance study modules, adequacy of facilities, resourcefulness of TVET institution and attractiveness of TVE institutions and adaptability.(See tables 1&2)	Given the growing demands for TVET, new and emerging technologies, government funding provided to TVET's are sorely inadequate.	TVET Directorate should aggressively lobby for higher funding allocation from DECS.

Finding/s	Conclusion/s	Recommendation/s
The following are the five priority training areas identified by the respondents:research and development methods and techniques, management of TVET institutions, curriculum development/HRD and training of trainors. For more effective curriculum development a draft was prepared on the skills standards for operators, craftsmen and technicians in mechanical technology, Several courses were reviewed and a revision is on-going for the following courses: furniture and cabinet making, hotel and restaurant service technology, fashion design, ceramics and business management. Prototype instruotional materials were finalized and reproduced for the following technologies: automotive, electrical electronics, civil, welding and fabrication; agriculture, fisheries, refrigeration and airconditioning, mechanical, and furniture and cabinet making.	More work is required in curriculum development and in instructional and resource materials.	Special projects funding from international or private international or private sector should be explored to support continued upgrading of curricula, materials, equipment and facilities.

3.3 On Research and Development

Finding/s	Conclusion/s	Recommendation/s
Ratings of the respondents indicate that R & D in the Philippines is above average in the following: adequacy of research activities and dissemination of R & D outputs and capability. R & D was rated to be good in the following: usefulness of outputs. See Table 4.	The ratings are so positive but comments indicate that more should be done in this KRA. This was identified as high growth and high priority.	There are many TVET issues on curriculum, programs, instructional materials and techniques which should be researched. Research results should be shared with head of TVET institutions.

3.4 On Consultancy and Technical Assistance

Finding/s	Conclusion/s	Recommendation/s
Many among respondents observe the Philippines as a supplies of consultants on TVET in the region and elsewhere. There are capable administrators and lecturers who have been invited to share their expertise. There are many instances where public sector TVET consultants provide consultancy to the private sector and vice-versa.	The Philippine brain drain includes the drain of TVET experts to other countries as well as from public to private employment where the economic benefits are more attractive.	Explore an incentive system which recognize expertise of TVET professionals in the country. Increase consultancy/tech assistance cooperation between private and public sectors.

3.5 Linkaging and Networking and Expanding the Resource Base

Finding/s	Conclusion/s	Recommendation/s
Although some institutions have very good linkages with the private sector, it was still felt that on the whole the linkage of the TVE institutions of the Philippines can be improved. Private sector respondents expressed willingness to collaborate with certain institutions for the students on-the-job training. TVE institution respondents indicated that collaboration can take on the form of subsidies, scholarships, provision of equipment and training materials. (See Table 4)	Although the ratings came out as fair, all respondents commented that linkage are weak and should be strengthened. Potentials for increase in resource base do not look too good. Many Philippine business and industries support NGOs which provide additional skills training.	A more aggressive pursuit of more and closer collaboration between TVETs and the private business and industries, with regional and international organizations sharing the same priorities and with especially CPSC.

Table 1. Philippines: CPSC Alumni Respondents' Level of Satisfaction on TVE

N = 6

ASPECTS	LOW 1 f	2 f	3 f	HIGH 4 f	AVE. RES-PONSE
Efficiency of institutional administration and supervision	0	1	4	1	3
Adaptability of TVE management to change and to innovate	0	2	4	0	2.6
Requisite quality of teaching staff	0	1	5	0	2.83
Responsiveness of the TVE curriculum to current and changing requirements of industry and the labour market	0	3	3	0	2.5
Adequacy of facilities and equipment	0	3	2	0	2
Resourcefulness of the TVE institutions to generate income and become self-reliant	0	2	3	0	2.167
Attractiveness of TVE institutions to secondary school graduates	0	2	3	0	2.167
Employability of TVE graduates	0	0	5	0	2.5
Effectiveness of Institution-Industry Cooperation	0	0	5	0	2.5
OVERALL AVERAGE					2.27

Table 2. Philippines: TVE and Dept. of Labour Directors and Heads' Perceptions of the Country's TVET Capability in Training and Technology Transfer

N=4

ASPECTS	LOW 1 f	2 f	3 f	HIGH 4 f	AVE. RES-PONSE
Relevance of training designs to current needs	0	1	3	0	2.75
Relevance of training to position of trainees	0	0	2	2	3.5
Quality of training programs	0	1	2	1	3
Quantity of training programs	0	1	2	1	3
Practical application of training undertaken	0	1	1	2	3.25
Training methodology	0	0	4	0	3
Training materials	1	1	2	0	2.25
Adequacy of training facilities	1	1	2	0	2.25
Quality of trainors	0	0	3	1	3.25
Use of distance study modules	2	1	1	0	1.75
OVERALL AVERAGE					2.83

Table 3.1 Philippines: Technician Students and Graduates' Level of Satisfaction on the Country's TVE in Various Aspects

N = 6

ASPECTS	LOW 1 f	2 f	3 f	HIGH 4 f	AVE. RES-PONSE
Curricula Offerings: Responsiveness to country needs	0	0	1	5	3.83
Adequacy of shop courses	0	0	1	5	3.83
Relevance of cognitive/theoretical courses to shop courses	NR				NR
Adaptability to changed and to innovate	0	0	2	4	2.33
Type of teaching methods, facilities and equipment	0	0	1	5	3.83
Usefulness of courses to job requirements	0	0	1	5	3.83
Overall effectiveness of curriculum	0	0	0	6	4.0
OVERALL AVERAGE					3.61
TVE Institutions: Faculty competence and expertise	0	0	0	6	4.0
Efficiency of vocational guidance and placement services	0	0	0	6	4.0
Library services	0	0	5	1	3.16
Resource Learning Centers, if any	0	0	3	3	3.5
Physical apperance of buildings and other structures	0	0	0	6	4.0
OVERALL AVERAGE					3.73

Table 3.2 Philippines: Technician Students' and Graduates Perception About their TVE Training

N = 6

INDICATORS	1				2				3				4			
ASPECTS	1 f	2 f	3 f	4 f	1 f	2 f	3 f	4 f	1 f	2 f	3 f	4 f	1 f	2 f	3 f	4 f
Curriculum Content OVERALL AVERAGE: 2.6	0	0	1	5	0	0	1	4	0	0	0	5				
Process of Training OVERALL AVERAGE: 2.8	0	0	1	5	0	0	0	6	0	0	1	5	0	0	0	6
Training Materials OVERALL AVERAGE: 2.3	0	0	1	5	0	0	2	4	0	0	2	1	5			
On-the-job training/ industry engagement OVERALL AVERAGE: 2.8	0	0	0	6	0	0	0	6	0	1	4	1	0	0	0	6

Legend: Using a scale of: 1 - 4

Indicators of Curr. Content:
1 - Theoretical - Theoretical and practical
2 - Does not incorporate - Incorates current trends
3 - Inadequate - Adequate

Process of Training:
1 - Not organized - Organized
2 - Traditional and outdated - Updated and modern
3 - Disjointed and fragmented - Integrated and continuing
4 - Boring - Interesting

Training Materials:
1 - Inappropriate - Appropriate
2 - Inadequate - Adequate
3 - Outdated - Updated

On-the-Job Training:
1 - Unsystematic - Systematic
2 - Boring - Interesting
3 - Too short - Too long
4 - Does not provide for practice experience - Provides for practice and experience

Table 4. Philippines: Dept. of Labour/TVE Directors' and Heads' Perceptions on the Country's TVE capability in Various Services

N = 4

ASPECTS	LOW 1	2	3	HIGH 4	AVE. RES-PONSE
Research and Development Adequacy of research activities	0	1	0	1	3
Adequacy of development activities	0	0	3	1	3.2
Usefulness of R and D outputs	0	0	2	2	3.5
Dissemination of R and D outputs	0	1	2	1	3
Capability for R and D	0	2	0	2	3
Overall Average					3.1
Networking (Linkaging) Linkage with private sector	0	0	2	2	3.5
Linkage with training centers in member countries	0	1	3	0	2.75
Relationship with APSDEP, ILO INNOTECH, etc.	0	0	2	2	3.5
Networking with international organizations 2(NR)	0	0	2	2	3
Capability to attract collaborators	0	0	2	0	3
Overall Average					3.15

THAILAND SUMMARY

1. BACKGROUND

1.1 Scope

An ARMDEV research specialist spent four days in Bangkok. Considering the budget and time limitations especially the terrible traffic congestions in the city, only a small representative sample was reached. Practical considerations limited the study to agencies within the Metropolitan Bangkok area.

Through the goodwill and hardwork of the Department of Technical and Economic Cooperation (DTEC) appointments were made with public sector respondents from DTEC and Ministry of Education's Department of Vocational Education (DOVE) Department Deputy Directors, Division Chiefs, Section and TVET Centre Directors; and Asst. Presidents, Deans and Faculty members of prime technical institutes of Thailand namely, King Mongkut's Institute of Technology Thonburi and North Bangkok as well as the Rajamangala Institute of Technology. Private sector respondents were from the American Chamber of Commerce in Thailand, the Private Investment and Trade Opportunities Project, Charoen Pokphand Engineering Co., Ltd. and Midas Agronomics Co., Ltd.

Sampling of the study included the following:

RESPONDENTS	NUMBER
CPSC Alumni	16
Policy-makers Non-CPSC Alumni	8
Technician graduates and graduating students	0
Private Sector/Business	4

1.2 Limitations

Ideally, the study should have covered at least all of the industrialized and agriculturally developed areas of Thailand. Due to budgetary limitations, the sampling covered only information available from sources in Metropolitan Bangkok.

The number of respondents from the private sector did not reach the desired target.

No technician graduates were interviewed nor requested to fill questionnaires due to lack of time and preparation.

It was noteworthy to discover that many among the respondents even from the public sector have not heard about CPSC. It was not suprising the hear the remark from the private sector. Therefore, many respondents begged off from filling the questionnaire on the portions pertaining to CPSC.

2. EMERGING TRENDS, FUTURE NEEDS/CHANGES/DEMANDS

In the last five years, Thailand's diversified export-oriented, free-market economic development policies have made Thai economy one of the fastest growing in the world. Its diversified manufacturing sector has made the largest contribution to the nation's economy since 1979. Industries in which production has increased rapidly include computers and components, garments and footwear, furniture and wood products, canned food, gems and jewelry, toys, ceramic and plastic products, and electronics.

Moreover, high growth industries include motor vehicle parts, construction materials, foods and beverages and electrical appliances. In addition, certain portions of the country have a booming tourism industry. The American Chamber of Commerce in Thailand project continued expansion in imports of telecommunication equipment, pollution-control equipment, medical equipment and supplies, food processing and packaging machinery, computers and peripherals.

Thailand's policy of promoting export-led growth through processing and manufacturing has led to significantly higher income levels in the Bangkok area and a few other areas where these and tourism are the major activities. However, growth has been much slower in other areas.

Key informants are predicting that in the next five years, there will be increased concern for protection/conservation of the environment (land,sea,air), adequate supply of potable water and electric power; continued expansion of manufacturing and processing as well as construction and tourism industries. This will require improved technical skills in all fields of engineering; increased computer application in all sectors; and increased participation of women in technical/ vocational labor market.

All of the above indicate continued need for skilled technicians, trained engineers and other technical professionals. Everyone interviewed stated that Thailand is experiencing acute shortage of skilled manpower and technicians. The Royal Thai Government has placed TVET at the top of its major priorities mainly because of its desire to become a newly-industrialized country (NIC)by the year 2000.

In order to meet the changing demands of Thailand's industrial boom, the tech/voc systems will continue to be challenged to provide sufficient world-class manpower. The tech/voc system will have to establish closer relationships with industries in order

to develop relevant and responsive training and development programs. These programs must target both the training/teaching staff and the trainees/ students. Priority areas where trained manpower will be needed in the next five years will be in high tech manufacturing and processing, computerization, petrochemicals, power generation, electronics, communication, science and engineering, environment technology and trained managers of industries and service (tourism-related) sector.

Current TVET efforts in the country are not sufficient to supply the demands of industry for trained manpower. Over the next five years, creative ways of multiplying the capacity of TVET and strengthening capability for managing tech/voc education and training will be critical to the continued growth of the Thai economy. The Department of Vocational Education (DOVE) in its Five-Year Plan will pursue two tracks: new courses in existing schools; and construction of 15 new training institutions.

3. MAJOR FINDINGS AND RECOMMENDATIONS REGARDING TVET IN THAILAND

1992 ushered implementation of the Seventh National Development Plan (1992-1996) for the Royal Thai Government. Three systems charged with public technical and vocational education and training of the country manpower in the Ministry of Education are the Department of Vocational Education, Rajamangala Institute of Technology and the King Mongkut's Institute of Technology (Thonburi, North Bangkok and Lardkrabang). These TVET systems hope to continue programs designed to develop the quality of technical and vocational skills in Thailand, assess needs for skills training in the rapidly changing public and private labor market, initiate new programs and innovative projects to meet the development objectives of the country.

3.1 On organization and Management Capability

<table>
<tr><th>Finding/s</th><th>Conclusion/s</th><th>Recommendation/s</th></tr>
<tr><td>
Two questions were asked of Alumni respondents regarding this key result area (KRA) and their responses were:
<table>
<tr><th>ASPECT</th><th>LOW 1 f</th><th>2 f</th><th>3 f</th><th>H 4 f</th><th>AVE. RES ONSE</th></tr>
<tr><td>Efficiency of institutional admin. & supervision</td><td>2</td><td>6</td><td>4</td><td>1</td><td>2.30</td></tr>
<tr><td>Adaptability of the TVE management to change and to innovate</td><td>2</td><td>6</td><td>5</td><td>0</td><td>2.23</td></tr>
</table>
</td><td>With an average fair rating in this key result area, it is obvious that capability-building is needed.</td><td>Opportunities for Senior and middle level TVET officers to enrich their organization and management skills should continue to be offered. CPSC can be a major resource especially if it is able to offer professional incentives.</td></tr>
<tr><td>It was mentioned by several interviewees that the Royal Thai Government puts high priority on tech/vocational education. It will increase the budget for all three public TVET systems to meet the growing demands for quantity and quality programs and well-trained manpower.

The Royal Thai Government practices strategic planning to ensure continued reassessment of needs, programs and services. DOVE and the KMIT system are currently implementing the Seventh National Development Plan (1992-1996).</td><td>Strategic planning capability is present in the TVET Directorate which prides itself on its vocational records and concerted efforts to reach aspirations in these fields. It plans to develop quality in vocational education, reassess the need for practical skills for the labor market, as well as initiate innovative programs and specialized projects to development objectives of the government.</td><td>TVET Directorate Officers should aggressively make representations to realize plans for expansion of TVET programs, and all corollary structure and systems.</td></tr>
</table>

3.2 On Training and Curriculum Development

Finding/s	Conclusion/s	Recommendation/s
Respondents indicate that the Royal Thai government is providing fairly good education and training to prepare its manpower for the world of work. Through the three public systems mentioned above and private institutions, TVET in Thailand can lead to a: certificate, diploma, bachelors degree, masters and doctorate degrees. These programs educate or train technical/vocational teachers and administrators, soience and technical manpower.	Thailand has a full TVET offering with progressive academic degress.	
Weakness and Strengths --- According to the majority of interviewees, the national TVET system is hampered by lack of well trained voc. teachers; continued use of traditional curricula and teaching methods; competition between the public and private sector for the services of highly trained technicians and professionals; not enough programs and facilities to supply needed trained labor in the ever-growing construction, manufacturing and processing industries; and the fair to good quality of graduates. Private educational institutions are taking some of the slack for training and technology transfer through in-house training. There is concern however in the quality of graduates especially from the private technical/ vocational institutions. Government Officers rated the country's TVET training capability to be from fair to high or above average. Areas rated as above average include: relevance of training programs, quantity of training undertaken See Tables 1 and 2. CPSC alumni were more critical although the average rating comes out fair. Refer to Table 1. Areas as fair or average included; requisite quality of teaching staff, responsivess of TVE curriculum to changing requirements of industry and the labour market, the increasing attractiveness of TVE courses to secondary school graduates and employability of TVE graduates.	While Thailand may have evolved a fairly adequate tech/voc education and training system, there are several aspects which were identified as areas-of-improvement: teacher training (quality and quantity), private technical/vocational education.	The TVET Directorate, specifically DOVE and the KMIT system should annually review implementation of the Seventh National Development Plan (1992-1996) to assess accomplishment of objectives, problems and solution. Thailand needs to expand its TVET capabilities to include emerging requirements in petro chemicals, electronics, power generation, computerization, environmental technology, etc. It must build adquate TVET facilities; train teachers; develop needed curricula and materials. Thailand should enrich its current TVET system.

Finding/s	Conclusion/s	Recommendation/s
Thailand suffers from a shortage of well-trained tech/voc instructors, professors, technical professonals (engineers, etc.) and skilled and semi-skilled workers. Moreover, many tech/voc professionals in public schools and technical colleges are pirated by private industries where economic benefits are more attractive.	Not enough students take up tech/voc education and training. Moreover, current tech/voc facilities are unable to supply enough graduates to the industry/labor sector.	TVET Directorate should explore new creative strategies to attract more students, teachers in tech/voc. It should also study ways of sustaining its instructors and professors.
Instructional and training resource materials are inadequate in quality and quantity. Respondents also mentioned the lack of resource materials.		Relevant TVET training resource materials should on a regular periodic basis, be provided the system to update and enrich knowledge of TVET Directors, faculty and instructors.
The Graduates --- All 4 private sector respondents and about 60% of public sector respondents stated that voc/tech graduates are not well-prepared. On-the-job training is still required to upgrade thir entry skills. Positive impact of voc/tech training among graduates is shown in ready promotions, increased salary and improved social status especially for graduates in advance degree education programs.		
Collaboration with Private Sector --- From discussions, it was explained that a small number of cost-shared short courses, scholarship, apprenticeship projects are implemented in partnership between public and private sector. Some attempts to expand collaboration have yielded modest results. According to public sector respondents some private industries refuse cooperative arrangements. On the other hand, private sector respondents stated that they would be willing to explore opportunities - especially if the effects will include increase in voc/tech graduate numbers and skills. Certainly more collaboration in training efforts will enhance the opportunities for cost sharing.	Training collaboration remains a fertile ground for future closer relationship between the private and TVET Directorates. A definite growth area.	The TVET Directorate should search for creative ways of encouraging the private sector to actively support the government direction of improving and expanding TVET in the country. Several suggestions include: - Create professorial chairs in the technical institutes, funded by industry/ business. - Identify top 50 corporations and explore willingness to provide financial assistance to build vocational training centers, sponsor training courses, provide training equipment or secondment of trainers. - Include representatives of business and industry in the planning and policy-making bodies of TVET Directorate and local polytechnics.

Finding/s	Conclusion/s	Recommendation/s
Miravalles' data (CPSC CorPlan memos) point out that Thailand has consistently taken full advantage of CPSC courses offered in the region, sub-region and in-country. It ranks second in the region for frequency of in-country courses conducted in the last five years. CPSC regional courses have been generally helpful to Thai instructors and middle-level administrators. However, many of CPSC regional seminars are of little value to senior administrators especially of technical institutes. Some feel they may have more to share than invited "experts". Others expressed the need for academic incentives from CPSC course participation. Senior administrators request for advance courses for their continued professional growth. The regional and sub-regional trainings are valuable linkaging/networking opportunities also.	There is need for continued training opportunities opportunities among IVET Directorate and other staff.	Where possible, as many of CPSC's training courses should be offered in-country so that more member country participants can benefit from the trainings. Open opportunities for training in the following identified priorities for the next five years: - computer applications - training of trainors - management of IVE institutions - instructionall design and methodology - research and development methods and techniques - staff development/HRD - CBTE - manpower planning

3.3 On Research and Development

Finding/s	Conclusion/s	Recommendation/s
Respondents predict R & D to be the growth and expansion priorities in the next five years. Current capability is sorely inadequate due to lack of resources. Items in this category were rated from average to slightly above average. Adequacy of research activities, adequacy of development activities, usefulness of R & D outputs, dissemination of R & D outputs, and capability for R & D. See Table 4. To some extent, research and development activities are going on in the country. In the King Mongkhut Technical College system, some research projects which are country-specific are undertaken. The Department of Vocational Education has Research Centers.	TVET Research or Planning units should be strengthened so these can, with enriched skills and techniques, plan, implement, monitor and evaluate research and development activities relevant to TVET issues in Thailand. Thailand at this stage of its development requires an expanded high tech research capability. Lack of funds hamper expansion of research and development projects.	CPSC should act as a catalyst in fund-sourcing for research and development opportunities in member countries. Thailand recommends that research consultancies be at least one semester to ensure likelihood of technology transfer to local researchers, importantly to produce hard outputs from such engagements. Thailand recommends among others the following subject matters for R/D - systematic manpower planning, models of instuctional design and methodology, development of instructional materials, models of collaboration with private sector, module development and evaluation, models in management of TVE institutions and curriculum development for industrial education.

3.4 On Consultancy and Technical Assistance

Finding/s	Conclusion/s	Recommendation/s
Through DOVE,KMIT and RIT, consultancy services to other institutions and agencies in the areas of technical education, science, technology and engineering are made available in a limited capability. Some members of the faculty from these organizations provide consultancy services to private businesses and industry as part of special projects of the institutions or more often than not, on a personal capacity. Senior administrator respondents indicated capability and willingness of experts from the TVET system to provide consultancy services to the private sector in Thailand and to CPSC member countries when appropriate. Thailand has experts, world-class tech/voc facilities and institutions which can be rich resources to other Colombo Plan member countries.	Thailand has expertise to share with the region.	Explore expanded consultancy engagements of Thailand's individual tech/voc experts and institutions. Inventory current TVET experts in the country and share the information with all tech/voc institutions.

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Finding/s	Conclusion/s	Recommendation/s
While Thailand may have the capability to effectively direct its TVET systems in response to the changing needs of industries, it will continue to need outside assistance, from CPSC and others to meet the challenges of the new growth.	In the next five years, Thailand will need consultants in the following fields areas - application of computers in teaching/learning process and in administration of TVETs, models on maximized private sector involvement in TVET.	National TVET Directorate should continue to conduct periodic assessment regarding TVET needs and priorities of Thailand; then plan a technical assistance program to strengthen Thailand's TVE system the next five years. With the assistance of CPSC or other sources, a computerized data bank of resources (institutions [public/private] of [national - international], individual experts, non-governmental organizations) which have credible programs in all the emerging needs enumerated above, should be developed.
Short-term TA/C have been beneficial; however long-term TA/C increase likelihood of skills transfer and production of outputs.		Where possible, establish a system of consultancy which will allow long-term (one semester at least) engagements. It is presumed that long-term will be more beneficial. Institutional strengthening and technology transfer will more likely occur when consultancy is provided in an appropriate duration. Explore pros and cons of long term consultancy as opposed to short-term.

3.5 On Linkaging and Networking/Expanding the Resource Base

Finding/s	Conclusion/s	Recommendation/s
	Linkaging and networking remains 'untrodden ground for the most part, and yet it has the best potentials for increasing and improving TVET capability in the country, the region and with CPSC; and for expanding resource base.	TVET Directorate should establish some kind of resource development section (if not in place) charged with the responsibility of formally and constantly linking with industry/business, with donor agencies and policy-making bodies in the country. The purpose of the networking will be to explore possible collaboration joint-ventures, sharing of resources. Such a relationship will be beneficial to both. TVET Institutions and systems should aggressively maintain formal linkage and networks among each other and with international, regional organizations. should constantly explore opportunities for more collaboration.

Finding/s	Conclusion/s	Recommendation/s
With the Private Sector --- 100% of private sector and 90% of public sector respondents stated that networking especially with the private sector and related agencies is weak. The public sector mentioned there are horizontal linkages especially for apprenticeship or on-the-job training, specialized projects for big industries, scholarship grants, consultancy services and research projects. At least four public sector respondents stated that government does a good job of establishing linkage with the private sector. In most cases however, the private sector is unwilling to collaborate. Most small and medium scale industries are unable to provide resources to fully cover expenses for specialized training or technical assistance. On the other hand, the private industry respondents said that they have not been approached. Big industries with region-wide operations can be convinced to collaborate if they see returns which benefit their particular industry. Industries have been seconding teachers to aeronautic schools. Scholarships are provided employees to pursue higher education and professional training. All private sector respondents answered positively to the question of networking. They said they just have to be asked. They are willing to be members of Boards and direction-setting groups, to expand current relationships to include co-funding of training centers or training courses, school-industry programs; and one company indicated a plan to construct an in-house engineering school to meet the company's increased demand for engineers which the TVET system has not been able to supply.	While big companies are willing to cost-share, medium and small scale businesses do not have surplus funds for cost-sharing. There is a positive attitude for closer collaboration between public and private sector especially on the part of the business sector. They have everything to gain considering the shortage of technician in the country.	There is enormous opportunity in enriching the activities and ensuring relevance and responsiveness of national TVET. Directors of TVET in Thailand should enlarge the roles of the private sector in TVET. Partnership with the private sector can be in cost-shared training, consultancy exchange, research project opportunities. Creative ways of encouraging the private sector to actively support the government direction of improving and expanding TVET in the country, include: - Create professorial chairs in technical institutes, funded by industry/business. - Identify top 50 corporations and explore willingness to provide financial assistance to build vocational training centers, provide training equipment or secondment of trainers. - Develop a government policy which will require private sector "levies" to be used for TVET, similar to the Korea model. - Include representatives of business and industry in the planning and policy-making bodies of TVET Directorate.

Finding/s	Conclusion/s	Recommendation/s
With Regional/International Agencies There are technical cooperation agreements with various government and international organizations especially with UNDP/ILO, the governments of Canada and Germany among others. Questionnaire ratings show very fair performance in relationships with APSDEP/ILO INNOTECH, etc. However respondents felt that the country is doing very well in networking with international organizations and governments. See Table 4.		Strengthen current relationship and develop new ones where applicable.
On Expanding the Resource Base Most of the respondents believe TVET system funds are insufficient to provide the most ideal TVET services to the country's manpower. Public sector Directors think that with official representation and agressivef public relations on the part of TVET system, the potentials for expanding resources-monetary, human, material (equipment, hard and software, etc.) to enhance TVET capability in delivering key activities is quite possible. However, much ground work must be done to convice the government to raise its budget allocation. Moreover, some respondents have experienced rejection by the private sector, especially the small and medium size businesses.	Good is not good enough.	TVET Directorate should establish some kind of resource development section (if not in place) charged with the responsibility of formally and constantly linking with industry/business, with donor agencies and policy-making bodies in member countries. The purpose of the network will be to explore possible collaboration, joint-ventures, sharing of resouces. Such a relationship will be beneficial to both.

Table 1. THAILAND CPSC Alumni Perception of TVET on TVE

N = 13

NEEDS	LOW 1 f	2 f	3 f	HIGH 4 f	AVE. RES-PONSE
Requisite quality of teaching staff	2	4	6	1	2.46
Responsiveness of the TVE curriculum to current and changing requirements of industry and the labour market	2	4	7	0	2.4
Adequacy of facilities and equipment	2	1	6	4	3.0
Resourcefulness of the TVE institutions to generate income and become self-reliant	7	0	4	2	2.0
Attractiveness of TVE courses to secondary school graduates	2	2	8	1	2.6
Employability of TVE graduates	3	1	6	3	2.6
Effectiveness of Institution-Industry cooperation	3	4	6	0	2.2

Table 2. Thailand: Policy-makers Perception of TVET Directorates Training/Technology Transfer Capability

N = 6

ASPECTS	LOW 1 f	2 f	3 f	HIGH 4 f	AVE. RES-PONSE
Relevance of training designs to current country needs	1	3	2	0	2.1
Relevance of training to position of trainees	0	0	4	2	3.3
Quality of training programs	0	0	4	2	3.3
Quantity of training programs	0	1	4	1	3.0
Practical application of training undertaken	0	0	4	2	3.3
Training methodology	0	1	4	1	3.0
Training materials	0	0	4	2	3.3
Adequacy of training facilities	0	0	4	2	3.3
Quality of trainors	0	0	4	2	3.3
Use of distance study modules	0	1	1	2	2.9

Table 3. Thailand: Policy-makers Projected Priority Training Needs on 1993 - 1997

N = 6

NEEDS	Number of Respondents
Management of TVE Institutions	2
Curriculum Development and Evaluation	1
Instructional Design and Methodology	1
Research and Development Methods and Techniques	3
Environmental Education	4
Entrepreneurship and Small-Scale Business	3
Women and Development	1
Computer Applications	6
Staff Development/HRD	2
Agriculture Education Technology and Management	2
Manpower Planning	2
Training of Trainors	4
Module Development and Evaluation	1
DACUM (Developing a Curriculum)	0
Competency-Based Technician Education (CBTE)	2
Human Behavior in Technician Institutions	1
Others, please specify	none

Table 4. THAILAND Policy Makers' Perception of TVETs' Research & Development and Linkaging Capability

N = 4

ASPECTS	LOW 1 f	2 f	3 f	HIGH 4 f	AVE. RES-PONSE
Adequacy of research activities	0	3	0	1	2.5
Adequacy of development activities	0	1	2	1	3.0
Usefulness of R & D outputs	0	2	0	2	3.0
Dissemination of R & D outputs	0	1	2	1	3.0
Capability for R & D (No one responded)	0	0	0	0	0
Linkage with private sector e.g. IBM, Samsung, etc.	0	2	0	0	2.0
Linkage with training centers in member countries	0	3	1	0	1.75
Relationship with APSDEP/ILO, INNOTECH, VOC/TEC/SEAMEO, AIT, etc.	0	1	2	1	3.0
Networking with International organizations (i.e., ADB, JICA, GTZ, CIDA, etc.)	1	2	1	0	2.0
Capability to attract collaborators	0	3	1	0	2.25

SOUTH ASIA REGION
SUMMARY

1. BACKGROUND

1.1 Scope

Generally, the CPSC Liason Officer of each country visited arranged the appointment schedules and logistical support of the ARMDEV Research Specialist. Overall, preparation of each country was commendable and the reception warm and understanding.

It was originally planned that the survey begin with interviews with private sector respondents to focus on the impact of voc/tech education and training (TVET). However, in all three countries, the private sector was at the tail end of the schedule and the number did not reach the desired target. This was reflective of the relationship between the two sectors which in one country was non-existent and in the other two, minimal.

Interviewees included CPSC graduates, Directors of Voc/Tech institutions who are non-CPSC graduates, private sector and graduates of Polytechnic schools.

Sampling of the study included:

COUNTRY	CPSC GRADUATES	NON-CPSC GRADUATES	PRIVATE SECTOR	TECHNICIAN GRADUATES AND GRADUATING STUDENTS	OTHERS	TOTAL
Nepal	8	6	4	10	-	28
Pakistan	13	4	4	7	-	28
Bangladesh	10	9	6	11	6*	42
TOTAL	31	10	14	28	6	99

1.2 Methodology and Limitations

Since the interview period was limited to office hours and the working schedule of government offices was shortened during winter, effective interview time in all countries

* Women respondents, the only women, who participated in the survey

started at 10:00 A.M. till 3:00 P.M. In Pakistan, the study was limited to the province of Sind. Ideally, it should have included all the provinces but shortened schedule, lack of logistics, political uncertainties and with the advice of local voc/tech officials, prevented wider coverage of Pakistan.

As a general procedure (except in Bangladesh) a validation/ feedback was conducted at the end of each interview to check on general findings. This proved to be healthy, allowing for open discussion on major findings and recommmendations.

Against harsh realities, the Voc/tech system manages its mission objectives and tasks under an atmosphere of positive outlook but shrouded by uncertainties and ambiguities on the political and economic future. The newly acquired democracies are a challenge but are also replete with doubts and anxiety. However, when private and government sectors are asked on the changes for the next five (5) years, the response is generally one of optimism. Both sectors feel and need to strengthen linkages.

2.A REGIONAL EMERGING TRENDS ON FUTURE CHANGES/DEMANDS

In the countries of Bangladesh, Nepal, and Pakistan, governments are shaping up to meet the new economic order. The process, as viewed, involved streamlining of government, privatization of government owned corporations, decentralization of government with emphasis on local development and trade liberalization.

Framed against this backdrop, these countries are setting the atmosphere for healthy business growth. Forces that each shall attempt to solve include:

1. The low literacy rate
2. High population growth
3. Structural reforms in land management and social structures
4. High preference and dependency for foreign goods with low value for local innovations in public and private sectors
5. Extensive poverty.

The following country reports summarize interviews of local government officials and the private sector regarding TVET each of these countries.

BANGLADESH SUMMARY

1. BACKGROUND (Refer to Page 82 - 83)

2.A REGIONAL EMERGING TRENDS ON FUTURE CHANGES/DEMANDS
(Refer to Page 83)

2.B EMERGING TRENDS, FUTURE CHANGES NEEDS/CHANGES DEMANDS

In Bangladesh, as in all countries of the world, economic development largely depends on the development and use of modern technology. To be able to do this, properly trained and skilled manpower of different levels and fields must be produced continuously in adequate number to carry forward the economic goals of the country.

Bangladesh has vast human resources which can be transformed into productive manpower to accelerate industrial development and achievement of economic prosperity.

The Bangladesh socio-economic fabric is becoming more and more complex and technology-dependent. Industrialization is predicted on electronics and agriculture development technology. Privitization, trade liberalization, rural development and escalating agriculture productivity are the concerns of Bangladesh in the next five years. The drive for increased employment opportunities, improved literacy rate and population growth management shall be supported tremendously by government and the private sectors.

Attracting foreign investment is a strong priority. Compulsory primary education, the drive for rural electrification and population management hope to transform the countryside into viable locations for rural industries. Thus, entrepreneurship appears to be a big need.

Regional labor exchange has become a revenue earner for Bangladesh which affects local labor market. Overseas work has been a magnet for the budgeoning population. Skills preparation for foreign employment is considered necessary; and has been found inadequate.

A significant development is the creation of the Foundation for Technical and Vocational Education and Training (FTVET) in 1991. It was born out of the organizers' felt need for private initiatives to supplement government efforts in TVET and to accelerate socio-economic growth in Bangladesh. The FTVET aims and objectives provide a comprehensive list of twelve key results areas which include among others, organizing TVET institutes and programs, building infrastructure, research activities, information campaign and curriculum development.

During the last few years, considerable work has been done towards expansion, improvement and consolidation of the facilities of technical and vocational education system in Bangladesh. Renovation of buildings, addition of new buildings, reorganization of the Technical Teacher Training College (TTTC) in Dhaka setting up of Vocational Teacher Training Institute in Bogra, installation of additional equipment, training of teachers both at home and abroad, development of textbooks and other learning materials, and increased on-the-job training for students are some of the major steps taken to improve the performance of the system and quality of the training programmes.

3. MAJOR FINDINGS AND RECOMMENDATIONS ABOUT TVET IN BANGLADESH

Two government ministries are charged with training the Bangladesh workforce - Ministry of Education through the Directorate of Technical Education; and the Ministry of Labour and Manpower through the Bureau of Manpower, Employment and Training (BMET).

The BMET provides regular vocational courses offered in the Technical Training Centres (TTC) all over the country; Skill Upgrading Programmes, Self-supporting Evening Trade Training Programmes and Industrial Garments Training Programs. The system of technical education in Bangladesh consists of four levels: 1) degree level for producing engineers and technologists; 2) diploma level for producing tehcnicians; 3) certificate level for producing skilled workers and craftsmen; 4) diploma and certificate courses for teacher education. The objective is to produce adequate number of well trained technical manpower of different levels and fields to meet the needs of industries and various service organizations for achieving economic prosperity and improving quality of life of the people.

3.1 On Organization Management Capability (OMC)

Finding/s	Conclusion/s	Recommendation/s
Satisfaction of all respondents for TVE is generally below average. Socially, voc/tech education is viewed as low. See tables 1 & 2. TVET performance is generally rated low in: a. faculty competence b. facilities and services	TVET in Bangladesh has progressed but is still unable to meet demands and quality expected by the administrators, the graduates and the private industries which utilize the skilled labor.	There is a need to upgrade the following: a. teaching staff should have higher education b. courses offered c. teaching method d. materials/equipment and library
Similar to the TVET situation in other countries, there is bias in policy and resource allocation toward formal education education hampering growth of voc/tech system.		TVET Directorate should advocate for more positive attitude towards voc/tech among government and society through a long term organization development process and mass information. Some strategies can be: -consultations, seminars and dialogues to improve bureaucracy's attitude towards voc/tech education; -institutionalizing the problem solving approach in the curriculum development, teachers training and policy-making to enhance analytical behavior among voc/tech learners; -incorporating in the subject matter a healthy outlook toward labor-management relation and work ethics; -strengthening the curriculum development and teacher training for entrepreneurial development.
It is foreseen that the path of development is through agriculture development. To this end, the voc/tech system requires: support towards evaluating existing voc/tech capability to meet agri-tech development needs; and teacher training to upgrade their competence in agri-tech education.	There is need to focus direction of voc/tech to respond to agriculture development.	TVET Directorate and BMET should evaluate present capability of voc/tech schools to meet agriculture development demands for training.

3.2 On Training and Curriculum Development

Finding/s	Conclusion/s	Recommendation/s
The eleven (11) graduate technician respondents viewed the image of tech education as average but the image of their college was seen as good. Most strongly agree that their school is one of the best in voc-tech education; and graduates are employable. On the various aspects of their school, the respondents rated all aspects average to slightly above average as in faculty competence, efficiency of vocational guidance and placement services, library and resource learning centers including physical appearances of buildings and structures. (See Table 3) On their level of satisfaction on the various aspects of curriculum offerings, their responses are: a. average for curriculum's responsiveness to country needs, ability to change and innovate, teaching methods, usefulness of courses and overall effectiveness of the curriculum. b. slightly above average on faculty competence Curriculum development needed in the ff. areas: - electronics - ceramics - mechanical auto building - metal - garments/textile - flower culture - recycling of waste - footwear - maintenance and repair services - bamboo craft	Technician graduates held a generally conservative view of their institutions and curriculum offerings. While they may be generally satisfied with the country's TVET, they gave suggestions to improve the system.	Effective linkages between VTI's/TTC's and the employers/industries be established; local advisory committee's be constituted to advise on course content, promote employment opportunities and industrial attachments. Popularize vocational training among industries to encourage the latter to produce quality products by engaging well trained manpower. Universal concerns such as environment, population management, women in development, management of change, problem solving and goal oriented behaviors, poverty etc. should be incorporated into the curriculum and teacher training. Incorporate into curriculum development teacher training to assure: a) relevance of designs to country need b) better and improved teaching methodology, materials and quality of trainors Priorities are: a) management of institutional development b) curriculum development and evaluation c) entrepreneurship d) staff development e) computer application, agritech education and/module development/evaluation

Finding/s	Conclusion/s	Recommendation/s
Graduates of polytechnic need continuing education to keep pace with technology development.		Assistance is needed in designing models for continuing education and to install it into existing voc/tech facilities or private professional groups. When providing training assistance, lengthen training duration to achieve a comfortable level of competency and not "half baked" trainees.
Overseas workers need voc/tech support both in skills and English language proficiency.	Assistance is needed in curriculum development and teacher training in the use of English as second language or "crash courses in shop English". This is urgently needed to increase communication facility of voc/tech graduates or illiterate manpower exports.	TVET Directorate and BMET should examine manpower export policy of government and set up relevant skills, language and culture orientation programs. Install monitoring systems to determine voc/tech needs of overseas workers.
Training material resources are not available for wider distribution. Existing libraries and shops need upgrading.	There's need to upgrade materials, equipment, books for instruction and as resources to teachers.	Conduct material/manpower exchange program. Assist country in sourcing assistance to improve these facilities. New learning materials should be introduced, properly implemented and continuously evaluated. Feedback should be used to revise syllabi and further development of learning materials. Prototypes, models and drawings for manufacturing e.g. school furniture, should be developed allowing for income generating production and sale of products with the income recycled for the development of production activities.
Teaching staff was rated slightly above average	Teacher training needs improvement.	Upgrade teacher training but first conduct a nationwide needs analysis for teacher training at the same time develop among institutional administrators the management capability to manage the growth of their polytechnics. Institute a performance evaluation system for teacher training, materials and curriculum development. Efforts be made to recruit teachers with industrial experience and to arrange specially designed skill upgrading programmes with provisions for further training so as to improve the quality of the instructions given by the teachers.

3.3 On Research and Development

Finding/s	Conclusion/s	Recommendation/s
Traditional vocations, women labor, emerging technologies in rural electrification and others need to be researched. Women's role is dominant in the construction and garment industries. However, there is a need to improve their work conditions.	Traditional vocations maybe affected by the impact of rural electrification. Women's role in construction and garments are increasing and should be studied.	Inventory or document indigenous knowledge and innovations for possible upgrading e.g. blacksmith. Survey women workers needs to advocate for better work conditions and to install appropriate education and policy interventions. Special arrangements for accomodation, transport etc. to meet women's needs be provided to actively promote their participation in technical vocational training. Selection and number of trades at VTI's/TTCs be reviewed and updated on the basis of actual requirements in the labour market which shall necessitate periodic revision of the syllabi allowing for local adaptation. Reactivate NCSDT to take up the responsibilities entrusted to it in respect to vocational and technical education in Bangladesh and a research cell be set up for Vocational Training.
To cope with the growth of industry , the voc/ tech school system feels a strong need to determine the impact of their graduates. Environmental interface especially with the private industries is weak.	A graduate tracer system is needed.	A national comprehensive survey be made to investigate th employment opportunities for VTI/TTC male and female graduates. Develop capability among the TVET schools for impact evaluation and institutional planning.

3.4 On Consultancy and Technical Assistance

Finding/s	Conclusion/s	Recommendation/s
The Technical Board and the Teachers Training Institute possess the capability to conduct in- country training and materials development. Bangladesh has entered into a number of foreign assistance agreements for the improvement of the Voc/tech Education. While data during interviews indicate a strong presence of NGOs in the rural areas, few except for Micro-Industries Development Assistance Society (MIDAS) are manifesting institutional capability for sub-regional collaboration. MIDAS is an NGO with capability in entrepreneurial development.	There is capability within the country to provide technical assistance and consultancy to polytechnics & other TVET institutions.	Engage MIDAS, FLORA LTD (computer technology), the Bangladesh Academy for Rural Development (BARD) (for agri-tech) to provide services in the rural areas. An accreditation and deputization system of NGOs and private TVET schools can be established.

3.5 Linkage/Networking and Expanding the Resource Base

Finding/s	Conclusion/s	Recommendation/s
Collaboration among/between TVET institutions, NGO and private industry is weak.	Assistance is needed in developing models/systems and procedures for close collaboration.	Industries should be encouraged to send their unskilled workers to VTIs for further skill development.

Table 1. Bangladesh: CPSC Alumni Respondents' Level of Satisfaction on TVE

N = 10

ASPECTS	LOW 1 f	2 f	3 f	HIGH 4 f	AVE. RES-PONSE
Efficiency of institutional administration and supervision	2	2	5	1	2.5
Adaptability of TVE management to change and to innovate	2	1	7	0	2.5
Requisite quality of teaching staff	3	4	3	0	2.0
Responsiveness of the TVE curriculum to current and changing requirements of industry and the labour market	0	5	5	0	2.5
Adequacy of facilities and equipment	2	3	5	0	2.3
Attractiveness of TVE institutions to generate income and become self-reliant	2	4	4	0	2.2
Resourcefulness of the TVE institutions to attract secondary school graduates	2	4	4	0	2.2
Employability of TVE graduates	1	3	5	1	2.6
Effectiveness of Institution-Industry Cooperation	2	4	4	0	2.2
OVERALL AVERAGE					2.33

Table 2. Bangladesh: TVE and Dept. of Labour Directors and Heads' Perceptions of the Country's TVET Capability in Training and Technology Transfer

N = 9

ASPECTS	LOW 1 f	2 f	3 f	HIGH 4 f	AVE. RES-PONSE
Relevance of training designs to current needs	0	3	5	1	2.78
Relevance of training to position of trainees	0	1	7	1	3.0
Quality of training programs	0	1	5	3	3.22
Quantity of training programs	0	2	5	2	3.0
Practical application of training undertaken	0	3	4	2	2.89
Training methodology	0	1	6	2	3.11
Training materials	0	2	6	1	2.89
Adequacy of training facilities	0	3	5	1	2.78
Quality of trainors	1	4	5	0	2.66
Use of distance study modules	1	3	5	0	2.44
OVERALL AVERAGE					2.87

Table 3. Bangladesh: Technician Students and Graduates' Level of Satisfaction on the Country's TVE in Various Aspects

N = 11

ASPECTS	LOW 1 f	2 f	3 f	HIGH 4 f	AVE. RES-PONSE
Curricula Offerings: Responsiveness to country needs	0	2	8	1	2.72
Adequacy of shop courses	3	4	4	0	2.10
Relevance of cognitive/theoretical courses to shop courses	3	5	3	0	2.0
Adaptability to change and to innovate	2	3	5	1	2.45
Type of teaching methods, facilities and equipment	0	4	6	1	2.72
Usefulness of courses to job requirements	0	4	6	1	2.72
Overall effectiveness of curriculum	1	3	8	0	2.72
OVERALL AVERAGE					2.49
TVE Institutions: Faculty competence and expertise	0	2	7	2	3.0
Efficiency of vocational guidance and placement services	0	2	8	1	2.9
Library services	1	3	5	2	2.72
Resource Learning Centres, if any	1	4	6	0	2.45
Physical apperance of buildings and other structures	1	5	4	1	2.45
OVERALL AVERAGE					2.70

Table 4. Bangladesh: Dept. of Labour/TVE Directors' and Heads' Perceptions on the Country's TVE capability in Various Services

$N_i = 9$

ASPECTS	LOW 1	2	3	HIGH 4	AVE. RES-PONSE
Research and Development Adequacy of research activities	2	3	4	0	2.22
Adequacy of development activities	1	4	5	0	2.66
Usefulness of R and D outputs	2	3	4	0	2.22
Dissemination of R and D outputs	3	3	3	0	2.0
Capability for R and D	0	3	4	2	2.88
Overall Average					2.39
Networking (Linkaging) Linkage with private sector	2	3	4	0	2.22
Linkage with training centers in member countries	0	0	6	3	3.33
Relationship with APSDEP, ILO INNOTECH, etc.	1	3	5	0	2.44
Networking with international organizations	0	1	6	2	3.11
Capability to attract collaborators	0	1	7	1	3.0
Overall Average					2.82

NEPAL SUMMARY

1. BACKGROUND (Refer to Pages 82 - 83)

2.A REGIONAL EMERGING TRENDS ON FUTURE CHANGES/DEMANDS
(Refer to Page 83)

2.B EMERGING TRENDS, FUTURE NEEDS/CHANGES/DEMANDS

Localized development emphasized the role of vocational technical institutions in providing the education/training support to local industries which are utilizing area-based raw materials for manufacturing and with the private sector slowly providing the forward and backward linkages. Tourism is the focus of industrialization and local industries expansion is expected. Vocational technical schools have to meet industry demands for quality workers.

It is viewed that in the next five (5) years, more industries shall rise and investment shall increase. It is hoped that Voc/tech schools will produce quality manpower for local industries. At this time, manpower requirement cannot be met. Twenty five percent (25%) to 40% of skilled manpower still comes from India.

Tourism industry, cottage industry and the textile industry are seen to be the foundation of Nepal's economic recovery in the years to come.

Current efforts of Voc/tech schools are not sufficient. A new strategy is designed to increase their capability through short term trainings designed along the resource base of each school to increase local enterprise productivity. Over the next 5 years, Nepal thinks it shall still require CPSC assistance in all facet of Voc/tech Education. Increasing private sector collaboration as Voc/tech resources should be emphasized by CPSC. While Nepal feels it should increase its contribution to CPSC it realized that as a growing nation, it may not be able to do so.

3. MAJOR FINDINGS AND RECOMMENDATIONS REGARDING TVET IN NEPAL

3.1 On Management and Organization Capability

Finding/s	Conclusion/s	Recommendation/s
Major TVET institutions currently involved in skilled manpower training are: 1. Council for Technical Education and Vocational Training (CTEVT) 2. Technical Institute of the Tribhuvan University 3. Labour Supply Centers (LSC) of the Department of Labour 4. Department of Cottage and Village Industries Courses offered include technician level courses under LSC; junior technician or craftsman level courses under SLC, training courses for primary school graduates or literates. Total number of places in these courses are not adequate to needs.	With only one sixth of the Nepali population enrolled in schools, there is much to be done.	Nepal government should take major steps in expanding training and education opportunities for employment.
Respondents rated the following from very low to low: requisite quality of teaching staff, responsiveness of TVE curriculum, facilities and equipments, resourcefulness of the TVE institutions to generate income and be self-reliant, attractiveness of TVE courses to secondary school graduates, effectiveness of institution-industry cooperation. Social acceptability of voc/tech is viewed as positive.	There's much to be done although CPSC alumni rated efficiency of institutional administration and supervision to be high.	Strengthen gain made by new thrust in decentralization of schools.

3.2 On Training and Curriculum Development

Finding/s	Conclusion/s	Recommendation/s
- Emerging industries need assistance in teacher training and curriculum development. - Need massive teacher training and curriculum development on the following thrusts:tourism, cottage and textile industries, electronics and mechanical industry. Assessment of students from polytechnics indicate an overall positive outlook of their experiences. The 8 respondents' age ranges from 18 to 27 years old. On the Image of Technical Education --- Generally, social acceptability, image and employability of graduates were seen as positive elements by 8 graduates of polytechnics. On the level of satisfaction of their college, 100% of the technicians graduates were positive in the areas of: faculty competence, library services, resource learning centers and physical apperance of buildings as well as use-fulness of courses to job requirements and adequacy of shop courses. Efficiency of vocational guidance and placement services was rated high. On the curriculum, the level of satisfaction of Nepalese student-graduates was above average or high in the following aspects:responsiveness to country needs,adaptability to change/ innovate, effectiveness curriculum, type of teaching methods, facilities & equipments. Below average rating was indicated for relevance of cognitive/theoretical courses to shop courses. Curriculum content was seen as a balance of theory and practice incorporating current trends and generally felt as adequate.	Data was mostly from questionnaires filled by technician graduates. Obviously there is shared satisfaction among them for both training program implementation and curriculum of TVET in Nepal. This is the user's view. Officials within the TVET National Directorate expressed critical comments about TVET in Nepal. It seems that TVET enjoys a positive image on the whole.	- Improve physical facilities of shops, equipments, library and tools - Improve OJT and English language teaching - Increase short term training programs to respond to local employment needs and resource base. - Develop the capability of schools to design, implement and evaluate short term training courses that address local needs - Develop curriculum that enhance enterpreneurial skills and develop productive and independent behaviors - Develop administrators that are managers of change, capable of institutional planning to convert highly subsidized schools to self sustaining institutes; Administrators who should be competent in program development, output/target oriented, managers of change and strong at managing collaboration especially with the private sector. Nepal should focus on curriculum development and upgrading project which will incorporate emerging needs in all five areas identified in the findings section.

Finding/s	Conclusion/s	Recommendation/s
The following emerging industries need teacher training and curriculum development : textile, electronics, computer,enterpreneurship and international export marketing promotion. The development of curriculum in these areas must consider the role and involvement of the private industries, and the general socio-political and cultural environment of the area. The Graduate in Nepal --- As observed graduates of Voc/tech in Nepal have acquired new status preferring "white collar" work conditions. Industry feels this behavior should be modified and should start at school.	Viewed from the perspective of country growth plans, Nepal's thrust, over the next five (5) years will be in massive teacher training and curriculum development in the following: Tourism development textile, electronics, computer and entrepreneurship. While there are bilateral assistance with ADB, UNDP-ILO, package is limited to infra development and technology transfer. Over the long run when the projects terminate, continuity shall depend largely on Voc/tech schools.	Emphasis may be placed in training computer technicians and all emerging technology. The system to link the schools in Kathmandu with the private sector must be pursued.
Training Priorities --- Still a greater part of Nepal's economy rely on the agri-sector (hilly and mountainous) and its settlements are located in relative isolation thereby demanding from the Voc/tech schools greater autonomy and reliance on local resources. In Nepal there is high government subsidy provided to Voc/tech students. CVET feels this should gradually be shifted to self-financing. Graduates are largely unemployed and their productivity is wanting.		CVET must strengthen both industrial and agricultural education/training especially in the remote rural areas.
a) Cottage industry is a vital revenue --- source for Nepal. An estimated 40,000 members of this industry employ an average of four (4) workers. The vision of CTVET is for TVET schools to catalyze area development based on industries, through the provision of short term trainings with immediate impact on employment and income. The needs are expressed as follows: - program/project development - teacher training and curriculum development for identified local enterprise.	Mechanical training provided is at the level where private industries feel it is sufficient. Area for improvement lies in developing positive attitude of graduates for work. Status should be related with performance rather that a precondition for employment.	Explore models from other countries where indigenous cottage industries are modernized in production technology.

Finding/s	Conclusion/s	Recommendation/s
- R & D skills in traditional technology adaptations as well as management of research - marketing and exporting of traditional products; - enterprise management training for Voc/tech faculty and management; - trainors skills for Voc/tech faculty b) Textile Industry: The Dyoti Group of companies is interested in linkage for: - R & D in adaptation of advance technology to traditional systems - setting up over the next five (5) years training capability to service the villages selected as production centers - community development of production centers for enterprise management. c) Electronics and Mechanical Industry: For elecronics, the need is in the area of teacher training, curriculum development. There is minimal capability existing among the voc/tech schools. Other areas of training concerns are: - ceramics technology - kitchen/food management	Basic production skills of traditional arts and crafts coupled with more modern production techniques are needed especially in the rural areas. Self-employment is still the major source of income especially in the countryside.	Training for literate and illiterate clients call for new approaches especially when the framework for development of short term courses is area-based and resource-based. However, there are existing models such as that of BTTC and DYSD where Voc/tech graduates are placed into industry or are supported to become entrepreneurs through linkage with the private sector. The expressed need of the Dyoti Group of companies to link with production villages for textile must to be supported through R & D for program development. This capability is absent in CVET and can be the focus of CPSC's research services.

3.3 Research and Development

Finding/s	Conclusion/s	Recommendation/s
Government Directors rated R/D capability to rural/technologies that need to be modernized be low to fair on average. Using voc/tech schools as catalysts may require R & D on how best these traditional technologies can be modernized (e.g. carpet industry). The five (5) priority areas for R & D in the next 5 years are: curriculum development, competency based technician education, management of IVE institutions, training of trainors, entrepreneurship development.	Like the other countries, Nepal's R/D activities are not at the level expected.	To make R & D more effective it should be country-based program with a village orientation assessed every three (3) years.-

3.4 On Consultancy and Technical Assistance

Finding/s	Conclusion/s	Recommendation/s
There is intense activity in bilateral assistance to Nepal. DANEDA, HELVETA, ADB, USAID, UNESCO, UNDP/ILO, USAID are a few which are actively supporting development work in Nepal. Th general sentiment is "Nepal needs all the assistance it can harness". CPSC is viewed as another partner in bilateral arrangement. Development is focused on internal capability-building for textile, electronics,computers, enterpreneurship and international market promotions.	Opportunity can be seen in the vast numbers of retirees from government service in Nepal. Some have organized themselves into NGO's but need to be trained for self management and in linking their programs with foreign assistance or with the private sector so they can render needed consultancy.	TVET Directorate should seek assistance in curriculum development to develop internal capability to manage short term course on textile, electronics and others mentioned. Inventory the tech/voc retiree experts in the country and make the list available to institutes and polytecnics.

3.5 On Linkaging/Networking and Expanding the Resource Base

Finding/s	Conclusion/s	Recommendation/s
Nepal feels it needs outside assistance in improving CTVET's role in collaborating and linkaging with private industries. The general opinion of those interviewed from the private industries is that Voc/tech institutions have failed miserably in this aspect. Except for Balaju Technical Training Center (BTTC), which is under the direct supervision of CTVET and once a recipient of Swiss aid, most voc/tech schools are seen to have produced average or below average graduates. In Nepal the Balaju Technical School together with training facilities of other TVET schools can be utilized to enrich TVET programs. Faculty expertise is not lacking. CTVET staff can very well support in-country training but funds are not available. Foreign assistance should be mobilized to support country efforts.	Much work is needed in this KRA.	Improve CTVET's collaboration with private sector and in mobilizing private as well as foreign assistance. It may be worthwhile to request from the Board of the Colombo Plan, a development fund for direct assistance to Nepal, Bangladesh and Pakistan Generally, the private sector can help TVET through close collaboration in curriculum development/teacher training and in providing resources. However, the private sector sentiment is that, THERE SHOULD BE DIRECT ASSISTANCE BY CPSC ON TERMS AGREED UPON BY BOTH PARTIES.

Table 1. Nepal: CPSC Alumni Respondents' Level of Satisfaction on TVE

N = 8

ASPECTS	LOW 1 f	2 f	3 f	HIGH 4 f	AVE. RES-PONSE
Efficiency of institutional administration and supervision	0	0	5	3	3.37
Adaptability of TVE management to change and to innovate	0	1	6	1	3.0
Requisite quality of teaching staff	3	3	2	0	1.87
Responsiveness of the TVE curriculum to current and changing requirements of industry and the labour market	3	1	4	0	2.125
Adequacy of facilities and equipment	3	1	4	0	2.125
Resourcefulness of the TVE institutions to generate income and become self-reliant	4	3	1	0	1.625
Attractiveness of TVE institutions to secondary school graduates	3	3	2	0	1.87
Employability of TVE graduates	0	3	3	2	2.87
Effectiveness of Institution-Industry Cooperation	4	2	2	0	1.75
OVERALL AVERAGE					2.29

Table 2. Nepal: TVE and Dept. of Labour Directors and Heads' Perceptions of the Country's TVET Capability in Training and Technology Transfer

N = 6

ASPECTS	LOW 1 f	2 f	3 f	HIGH 4 f	AVE. RES-PONSE
Relevance of training designs to current needs	3	2	1	0	1.6
Relevance of training to position of trainees	0	43	3	0	2.5
Quality of training programs	0	2	2	2	3.6
Quantity of training programs	0	2	3	1	2.8
Practical application of training undertaken	0	2	2	2	3.6
Training methodology	0	0	4	2	3.3
Training materials	0	2	3	1	2.8
Adequacy of training facilities	0	0	4	2	3.3
Quality of trainors	0	1	4	1	3.0
Use of distance study modules	0	3	3	0	2.5
OVERALL AVERAGE					2.9

Table 3 Nepal: Technician Students and Graduates' Level of Satisfaction on the Country's TVE in Various Aspects

N = 10

ASPECTS	LOW 1 f	2 f	3 f	HIGH 4 f	AVE. RES-PONSE
Curricula Offerings: Responsiveness to country needs	0	0	6	4	3.0
Adequacy of shop courses	0	0	3	7	3.7
Relevance of cognitive/theoretical courses to shop courses	2	7	1	0	1.9
Adaptability to changed and to innovate	0	0	9	1	3.1
Type of teaching methods, facilities and equipment	0	1	8	1	3.0
Usefulness of courses to job requirements	0	0	2	8	3.8
Overall effectiveness of curriculum	1	2	7	1	2.9
OVERALL AVERAGE	0	0	0	0	3.0
TVE Institutions: Faculty competence and expertise	0	0	5	5	3.5
Efficiency of vocational guidance and placement services	0	0	10	0	3.0
Library services	0	0	3	7	3.7
Resource Learning Centres, if any	0	0	2	8	3.8
Physical apperarance of buildings and other structures	0	0	2	8	3.8
OVERALL AVERAGE					3.5

Table 4. Nepal: Dept. of Labour/TVE Directors' and Heads' Perceptions on the Country's TVE capability in Various Services

N = 8

ASPECTS	LOW 1	2	3	HIGH 4	AVE. RES-PONSE
Research and Development Adequacy of research activities	0	6	2	0	2.25
Adequacy of development activities	0	6	2	0	2.25
Usefulness of R and D outputs	1	5	2	0	2.12
Dissemination of R and D outputs	4	4	0	0	1.5
Capability for R and D	0	4	4	0	2.5
Overall Average					2.12
Networking (Linkaging) Linkage with private sector	4	4	0	0	1.5
Linkage with training centers in member countries	0	4	4	0	2.5
Relationship with APSDEP, ILO INNOTECH, etc.	2	4	2	0	3.2
Networking with international organizations	2	4	2	0	3.2
Capability to attract collaborators	0	5	3	0	3.8
Overall Average					2.84

PAKISTAN
SUMMARY

1. BACKGROUND (Refer to Pages 82 - 83)

2.A REGIONAL EMERGING TRENDS ON FUTURE CHANGES/DEMANDS
(Refer to Page 83)

2.B EMERGING TRENDS, FUTURE NEEDS/CHANGES/DEMANDS

Pakistan is undergoing changes as reflected in its policy to streamline government, privatization and liberalization of trade. This is reflected in the proposed five (5) year plan to consolidate Voc/tech schools which are low budgeted and heavily subsidized. The attitude is still pessimistic since the past political atmosphere retarded growth of industry. Efforts of the Technical Board and the Directorate of Technical Education in developing Voc/tec capability has been consistently hampered by low budget support and low private sector collaboration. Despite the above, however innovations through the efforts of the two (2) offices are evident. The Voc/tech schools need improved facilities. The Province of Sind is responding by building local capability for teacher training.

With its labor and availability of raw material inputs, Pakistan's directions appear to be in electronics and mechanized industries. Vocational/technical schools which are located in Karachi are providing the manpower requirement of these industries which are located in industrial export processing sites.

Industrialization coupled with development in the agriculture sector will be the direction of Pakistan's development. Closer ties with its neighbors as well as potential relationships with the former Soviet republics shall become the focus of its economic/market relationship.

Recouping from years of political instabilities Pakistan is focusing on key issues of population, employment and trade liberation. The discovery of oil and labor availability shall boost its recovery, and attractiveness to foreign investment.

Just like Nepal and Bangladesh, the demand for Vocational Technician has increased. But the quality of graduates is below expectation of industries. Facilities are old and inadequate with high student ratio. Innovations have been introduced to maximize meager resources, but these are still not sufficient.

Over the next five years, changes demanded of Voc/ Tech education in Pakistan include:

- consolidation of existing institutes and areas of learnings, to meet the quantity and quality of graduates demanded by industry;

- establishment of Voc/tech systems in all districts;

- introduction of new additional high tech courses in polytechnics and institutes ;

- establishment of a Council for Technology and Vocational Teaching ;

- enhancement of legislation to encourage the private sector industries to institutionalize on - the- job training or industrial trainings for Voc/tech schools ;

- establishment of Production Units at polytechnics to enhance their resource base ;

- revision of curricula and survey of polytechnic outputs and physical facilities.

Closer collaboration with the private sector/industries will also increase demand for graduates in computers , automobile manufacturing, petrochemical as well as for repair and maintenance. Government will require curriculum development and Teacher Training. Pakistan feels it needs all the support from CPSC of the Colombo Plan.

3. MAJOR FINDINGS AND RECOMMENDATIONS REGARDING TVET IN PAKISTAN

3.1 On Organization and Management Capability

Finding/s	Conclusion/s	Recommendation/s
Voc/Tech schools are located in areas where there is direct relationship between local resources and industries. Schools are viewed as resource base, producing quality graduates to enhance local enterprise or service the personnel requirement of industries located within their sphere of influence. However, its relationship is not strong and the needs are: a) local school capability to develop institutional plans to match local resource and industrial demand. This would mean institutional planning capability; b) capability to institutionalize a validation system to determine Voc/tech impact and to provide feedback for improvement. Both the private and Voc/tech sectors believe that to enhance the role of the Voc/tech schools, the following must be done. - greater autonomy of schools to decide on their directions; - flexibility to allow Voc/tech to harness local and external resources to improve their system, technology and institutional capability; - cut down delays caused by bureaucratic red tape or centralized decisions.	There is serious planning going on to improve tech/voc capability especially in the Province of Sind where this study was conducted.	Technical and polytechnic school administrators must be offered training in institutional planning. Participants must upon return, apply the skills acquired. Preferably, Assistant Planners and principals be invited to this training. Action plans should require the application of skills. Teacher training and institutional capability-building should be enhanced.

3.2 On Training and Curriculum Development

Finding/s	Conclusion/s	Recommendation/s
Quality of curriculum is rated below average including facilities & equipment by CPSC graduates. See Table 1. CPSC Alumni and policy-maker respondents commented that curriculum development and teacher training should incorporate women needs in voc/tech, textile and tapestry technologies, petrochemicals, sugar and computerization are needed.	While the province of Sind is investing in developing teacher training capability, outside assistance is needed in the institutional development of this project. Priorities for training in the next 5 years are: - instructional design and methodology - curriculum development and evaluation	TVET Directorate should seek either foreign or in-country support (experts and funds) and embark on a tech/voc curriculum development project. Technician graduates recommend the following: - improve on the practical side of their education

Finding/s	Conclusion/s	Recommendation/s
Above average rating was given to relevance of cognitive/theoretical courses, shop courses, and adaptability to change and innovation. Technician graduates rate the curriculum offerings as above average on all items. Graduates of polytechnics are considered in sufficiently trained.	The private sector is generally critical about the quality not quantity of Voc/tech graduates. Entry skills are largely below expectation. Training puts too much emphasis on theoretical aspect and lack application. The training priorities in the next five years include: - research and development methods and techniques - management of TVET institutions - entrepreneurship and small-scale business - computer application - staff development/HRD - training of trainors - competency-based technician education	Syllabi should be revised and developed to industry realities. Legislation to encourage industry sector to accept student apprenticeship or OJT should be pursued. Universal concerns that should be integrated in curriculum development and teachers training include: - problem solving techniques to encourage analytical behavior - population education awareness - corporate/industrial norms to prepare students to adjust to corporate/ industrial culture.
Technician graduates rated process of training as organized and modern.		
On Image of Technician Education --- Social acceptability of voc/tech education was viewed as neither low nor high. The image of voc/tech as an institution was seen as excellent. Most of technician respondents strongly agreed that their college was one of the best institutions for technician education with graduates highly employable. On their level of satisfaction on the various aspects of their institutions, the technician respondents declared above average for faculty competence, efficiency of vocational guidance and placement services, library and resource learning centers and the physical appearance of buildings and other structures.	Technician respondents hold positive views of their training institutions similarly as in curriculum offerings.	

3.3 On Research and Development

Finding/s	Conclusion/s	Recommendation/s
TVET Directors rated adequacy of research and development above average but the following received average ratings: usefulness of R/D outputs, dissemination of R/D outputs and capability of R/D.	While tere may be satisfaction in some quarters, R/D will be the KRA of focus in the next five years.	TVET Directorate should examine current R/D needs and activities. It should assist polytechnics and technological colleges/ universities strengthen R/D where appropriate.

3.4 On Consultancy and Technical Assitance

WID is one area for consultancy. Concern was expressed on the conditions of women workers. The working women's inability to work overtime and mobility problems require legislative reforms to allow flexibility in working conditions such as: provision of transport; pressures of overtime which socially is difficult for women; and, gender-related problems.	Pakistan could use outside resources to help integrate WID in its tech/voc curricula and its planning process. It needs to collaborate with different sectors in curriculum development policy formulation and resources; and , the guidance of CPSC in developing models for giving schools greater autonomy to decide on directions, cut down delays caused by red tape and training in institutional planning.	Explore models of WID integration and expansion of WID concept. Enrich tech/voc school's capability to fully address women worker issues.

3.5 Linkage/Networking and Expanding the Resource Base

Finding/s	Conclusion/s	Recommendation/s
Institutional linkage with industry is rated low including TVET's ability to generate income and to be self reliant. Voc/tech officials feel that the private sectorshas been distant from them inspite their attempts to reach out. The general attitude from both sector is that collaboration in curriculum development,policy formulation and sharing of resources is highly possible and necessary.	The current linkage is tenuous between NGO's, business and industry and the public TVET Directorate.	Closer, stronger and effective linkage between private industry and TVETs can be in the following: - use of private sector training capability and facilities for teachers training; - involvement of industry in curriculum design - grant/assistance for equipment upgrading; - apprenticeship programs; - involvement in policy making.

Table 1. Pakistan: CPSC Alumni Respondents' Level of Satisfaction on TVE

N = 13

ASPECTS	LOW 1 f	2 f	3 f	HIGH 4 f	AVE. RES-PONSE
Efficiency of institutional administration and supervision	0	7	5	1	2.5
Adaptability of TVE management to change and to innovate	1	5	7	0	2.46
Requisite quality of teaching staff	3	7	3	0	2.0
Responsiveness of the TVE curriculum to current and changing requirements of industry and the labour market	2	8	3	0	2.07
Adequacy of facilities and equipment	3	8	2	0	1.92
Resourcefulness of the TVE institutions to generate income and become self-reliant	3	7	3	0	2.0
Attractiveness of TVE institutions to secondary school graduates	3	7	3	0	2.0
Employability of TVE graduates	1	6	7	1	2.92
Effectiveness of Institution-Industry Cooperation	6	6	2	0	1.85
OVERALL AVERAGE					2.08

Table 2. Pakistan: TVE and Dept. of Labour Directors and Heads' Perceptions of the Country's TVET Capability in Training and Technology Transfer

N = 4

ASPECTS	LOW 1 f	2 f	3 f	HIGH 4 f	AVE. RES-PONSE
Relevance of training designs to current needs	0	1	3	0	2.75
Relevance of training to position of trainees	0	1	2	1	3.0
Quality of training programs	0	1	3	0	2. 75
Quantity of training programs	0	1	2	1	3.0
Practical application of training undertaken	1	1	2	0	2.25
Training methodology	0	4	0	0	2.0
Training materials	0	1	2	1	3.0
Adequacy of training facilities	2	1	1	0	1.75
Quality of trainors	1	1	2	0	2.25
Use of distance study modules	1	2	1	0	2.0
OVERALL AVERAGE					2.47

Table 3 Pakistan: Technician Students and Graduates' Level of Satisfaction on the Country's TVE in Various Aspects

N = 7

ASPECTS	LOW 1 f	2 f	3 f	HIGH 4 f	AVE. RES-PONSE
Curricula Offerings: Responsiveness to country needs	0	1	4	2	3.14
Adequacy of shop courses	0	1	5	1	3.0
Relevance of cognitive/theoretical courses to shop courses	0	0	6	1	3.14
Adaptability to change and to innovate	0	1	5	1	3.0
Type of teaching methods, facilities and equipment	0	0	5	2	3.28
Usefulness of courses to job requirements	0	1	5	1	3.0
Overall effectiveness of curriculum	0	0	6	1	3.14
OVERALL AVERAGE					3.10
TVE Institutions: Faculty competence and expertise	0	0	5	2	3.28
Efficiency of vocational guidance and placement services	0	0	5	2	3.28
Library services	0	0	6	1	3.14
Resource Learning Centres, if any	0	0	3	4	3.57
Physical appearance of buildings and other structures	0	1	4	2	3.14
OVERALL AVERAGE					3.28

Table 4. Pakistan: Dept. of Labour/TVE Directors' and Heads' Perceptions on the Country's TVE capability in Various Services

N = 4

ASPECTS	LOW 1	2	3	HIGH 4	AVE. RES-PONSE
Research and Development Adequacy of research activities	0	1	2	2	3.0
Adequacy of development activities	0	2	0	2	3.0
Usefulness of R and D outputs	0	2	2	0	2.5
Dissemination of R and D outputs	0	2	2	0	2.5
Capability for R and D	0	2	1	1	2.75
Overall Average					2.75
Networking (Linkaging) Linkage with private sector	0	2	2	0	2.5
Linkage with training centers in member countries	0	1	3	0	2.75
Relationship with APSDEP, ILO INNOTECH, etc.	0	1	2	1	3.0
Networking with international organizations	0	0	2	2	3.5
Capability to attract collaborators	0	1	2	1	3.0
Overall Average					2.95

IV. The CPSC Corporate Planning Framework

It took 17 years for CPSC to commit to a strategic management system. Such a system should be an integral part of its organizational management from here on.

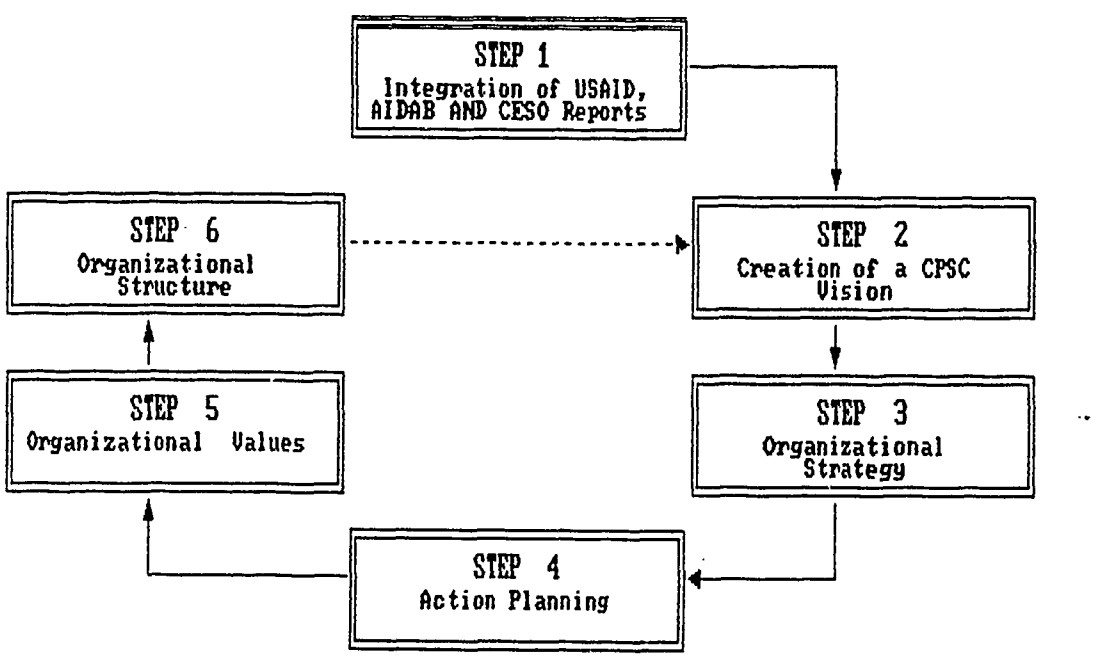
Every organization is supposed to do strategic planning. This section outlines a framework for the CPSC Corporate Planning Team to consider. The Team must tailor it to ensure that the planning process meets the needs of CPSC.

No universal, off-the-shelf planning system exists for all to use. Because organizations differ in size, diversity of operations, organizational structure and management philosophy, no one process will work in all agencies. The Project Contractor suggests the following to the CPSC CORPLAN Team. Following the notion that simple is better, the suggested framework integrates the three concepts of vision, strategy and values.

CPSC policy and senior decision-makers' responsibilities in this corporate planning effort is paramount. For it is at the very top that CPSC's future must be envisioned based on a thorough analysis of the environmental and "marketing" demands on the organization in the next five years. It is no easy task to manage this transformation process over the long term, while simultaneously accomplishing the CPSC mission of today and maintaining visible bottom line results.

The proposed CPSC corporate planning framework is an organized, systemic method of approaching managerial responsibilities. It is a structured process with some specific "how to" steps.

Figure 4. CPSC Corporate Planning Framework



Step 1 - Integration of USAID, AIDAB and CESO Reports

This is self-explanatory. Since CPSC chose to divide environmental sensing and data-gathering to three teams, results from all three should be consolidated.

Step 2 - Creation of a Vision

A "future vision" is a description of the desired future state that communicates a common direction and facilitates alignment of individual and organizational efforts. It is a way to communicate a common sense of purpose.

A word of caution. Formulating a strategic vision for CPSC is fundamentally different from doing long range planning. Both kinds of planning may cover the same time frame and both must involve strategy formulation. But while long range planning starts with the present and works forward, strategic planning begins with the future and works backward. Creating something new is qualitatively different from reacting to what currently happens.

Visioning for CPSC will require forethought and the courage of conviction. Without it, strategic, operational and tactical planning are meaningless. The CPSC vision paints the goal line of success in five years. Focusing on the vision gets planners thinking of the future in a positive sense, and not get wrapped up in the negativism of the perceived obstacles and problems faced in the present.

Developing the strategic vision is the responsibility of policy and decision-making body or bodies of CPSC. It is not a function to be completed by an individual staff agency. Typically, the Executive Director initiates the process and gets the senior policy and decision-makers involved in completing the task.

CPSC has a vision statement from the June 1992 Consultative Meeting. This statement should be reviewed in light of the five-year time perspective of the planning process.

Step 3 - Developing Organization Strategy

Once the future CPSC vision is created, the next step is to develop a strategy that will get the organization there.

A "strategy" is a process of determining the mission, goals and integrated action plans. Resourcing priorities are identified and a system to evaluate progress is established. The strategy is

a game plan to meet several outcomes. It is an understandable, changeable document which serves/ aids in identifying what is important. It assigns both responsibility and accountability, and is a common mechanism for internal coordination.

A. The strategy begins with a **mission statement** of the organization. The mission statement says why CPSC is in business. It differentiates CPSC from other similar agencies. It is the broadest statement of what CPSC hopes to achieve. CPSC mission should give meaning and direction to daily activities.

B. The mission must then be supported by **goals.** They are not "doable" in and of themselves. Instead, goals represent the targets of the future; what CPSC wants to accomplish.

C. Each goal is supported by one or more **objective** statements. This is where specificity is. Criteria for developing CPSC objective statements must be clearly understood and followed by those charged with writing them. Usually, objectives must be realistic and attainable, and written in specific action terms. They must be measurable either quantitatively or qualitatively. The CPSC objectives in the Corporate Plan should describe conditions that will exist when the tasks are completed.

D. Objectives will be followed by **integrated action planning.** A suggested process to develop CPSC action plans involves eight steps:

1) Analyze objective statement

2) Develop statements that characterize the desired future state (what will be happening when this objective is accomplished?)

3) Describe the current state (what is happening today?)

4) Identify the gaps (between current and desired future state)

5) Define the criteria for success (how will you know when you have been successful?)

6) Develop recommended action steps to fill the gaps (include timetable, who is responsible for what and what resources are needed)

7) Implement the action plan

8) Evaluate results to either terminate or modify.

E. Integrated action planning requires **prioritization and resourcing.** One of the major failings in strategic management is the gap between the planning process and the budget cycle. Most see the two as separate, non-related systems. Yet to be successful they must be fully integrated. In this CPSC CorPlan Process, preparation of action plans and budgets should be simultaneous. The rule of thumb is if it's not going to be resourced, then don't waste the time to plan for it.

G. Action plans are then **implemented.**

H. Finally, **monitoring of implementation,** progress checks should be conducted as an on-going activity. The culmination should be a planned **formal review or evaluation** of results. Ideally, an appraisal system or periodic evaluation should be established for CPSC.

Strategy formulation should be done at all levels of the CPSC organization. Each level takes its lead from the strategy of the next higher echelon, thus creating an integrated plan. This technique capitalizes on the expertise, generates involvement and creates ownership at each level within the organization. Participation in the planning process must be encouraged.

Step 5 - Articulating Organizational Values

A CPSC Corporate Plan must have a foundation. In the corporate world this is fulfilled by establishing organizational values. This set of beliefs or operating principles is difficult to formulate, but is necessary because it serves as the basis of behavior and decision-making for the organization.

Although values get a lot of lip service, few organizations spend time actually articulating what they stand for as an organization. Values are not "hard" like policies or budgets. Tough-minded managers rarely pay much attention to the value system of their organization. However, a corporate plan alone, no matter how well formulated, cannot produce winning results. Companies with records of sustained outstanding performance have powerful corporate cultures and value systems.

CPSC must articulate its organizational values to strengthen its foundation. It must ensure that these values and norms are clearly communicated to and implemented by everyone involved in the CPSC organization.

Step 6 - Establishing Organizational Structure

Designing the right structure for CPSC is the final step. At this stage, the CORPLAN Team will define the structures for : **Management, Administration, Finance and Programs;** and any other areas which may be identified after the actions plans are drawn.

V. CONCLUDING STATEMENT

The obvious conclusion about the future of the Colombo Plan Staff College for Technician Education is that it should be supported to continue its important and valuable role as a regional center of excellence for TVE in the region. The CPSC Corporate Planning Project is an important step.

The sign of the times indicate increasing technology-oriented needs and demands in the next five years - in education and training programs (curricula, materials, facilities, trainors and faculty); in industry and agribusiness demands for semi-skilled, skilled, technical workers. There will be increased demand for academicians, for technically-oriented middle and top managers in construction, manufacturing, agri-business and service industries. All respondent countries envision diversified production and processing/manufacturing technology. These will translate into tech/ voc programs - training, research and development, technical assistance, information exchange.

CPSC as the only institution devoted mainly to technician education and training in the region could have a pivotal role in the next five years. As a regional center of excellence, its potentials have yet to be optimized.

With a strong Corporate Planning process supported with an organizational development approach, future opportunities for CPSC should be explored at an early stage so that at the end of five years, the organization will be well on its way to effectively fulfill its distinctive mandate which is stated as: "to support the mission of the Colombo Plan of promoting technical cooperation in the Asia-Pacific region by assisting the member countries improve their national capacities to plan, develop and manage their technician education and training systems suited to their needs, development priorities and particular conditions through the provision of training, research and other advisory services."

ANNEXES

A - Project Agreement

B - Work Plan

C - Questionnaires

D - Major Findings and Recommendations on CPSC Capability

E - Qualification of the Contractor

F - Bibliography

P.O. BOX 9068 MCS
MAKATI, PHILIPPINES

PHILIP J. GIELCZYK

Annex A

14 October 1992

DR. C.K. BASU
Director
Colombo Plan Staff College for Technician Education
Bldg., Block C, UL Complex
Meralco Avenue, Pasig
Metro Manila

Dear Dr. Basu,

I am pleased to submit to you the proposal to prepare a detailed framework analysis for a 5-year corporate planning process for the Colombo Plan Staff College.

PROJECT DESCRIPTION

This proposal on the Five-Year Corporate Plan for the Colombo Plan Staff College for Technician Education, also called the College of CPSC, covers the period 1993-94 to 1997-98. The project which is funded by the United States Agency for International Development (USAID) and will be completed by 15 February 1993.

BACKGROUND AND RATIONALE

Recognizing the significance of enchancing the efficiency and ensuring the effectiveness of the College operation in the management of its program, the College sought the valued assistance of the USAID in order to maximize its services in meeting the development requirements of the seventeen member countries. In November 1990, the USAID commissioned a study team to review the CPSC, its programs and operations. Guided by the findings of the USAID study and other relevant CPSC reviews as they relate with the institutional mandate and mission statement, the project objectives evolved.

OBJECTIVE AND OUTPUT

In general, the study is designed to -

a) Generate information about CPSC in five key result areas: Organization and Management Capability, Training/Teacher Education and Transfer or Technology Programs, Research and Development Services, Consultancy Services and Linkage/Networking Capability.

b) Develop recommendations regarding future directions to be taken by CPSC on all of the five KRA's above, especially on collaboration with private business and industry sector.

The key outputs of this study are the following:

a) detailed framework for the USAID-PCSC Corporate Planning Project:

b) detailed Action Plan and Project Implementation Schedule for the USAID Team:

c) field reports of country visit findings:

d) recommendation regarding:

- CPSC and country-related programmes in Technician Education (training, research and development, consultancy and linkage)
- CPSC directions in management and organization
- Opportunities for future CPSC-USAID collaboration in the programs mentioned above
- Possible CPSC resources and strategies in sourcing fresh and/or traditional financial resources from member countries, donor agencies and especially the private sector businesses and industry.

The content and form of the CPSC operational framework plan shall be in accordance with the quality as specified by CPSC and accepted by USAID.

APPROACH AND METHODOLGY

For the purpose of this initiative, almost exclusively primary data will be emphasized, utilizing personal interviews, questionnaire and related tools. Internal published materials furnished by the staff of CPSC, such as the Corporate Planning and Networking Meeting Report (1-5 June, 1992) and the Internal Review of College Program and Activities December, 1990, and the CPSC Feasibility Design Study (no date) will be used as background material. Only informed and qualified persons will be contacted from both the public and private sectors. It is estimated that between 30-40 people will be interviewed in each country applying the following methods:

	Public	Private
High (Director/CEO)	2-3	2-3
Middle (Officers/Supervisors)	4-7	2-3
Low (Staff/Technicians)	10	10
CPSC Alumni	10	
	30-40	14-16

It is understood that all appointments for the consultants in each country is the responsibility of CPSC via their country liaison personnel. The Consultant will assist to the best of his abilities to identify the appropriate private sector persons to be interviewed in each country.

The study will be conducted in three (3) phases. namely:

Phase I - Preparatory Meetings with CPSC Staff/Development of Evaluation Tools

Phase II Country Visits Data Gathering/Assessment

Two (2) consultants will travel simultaneously to two (2) country groups:

Group (A) Korea. Thailand. Philippines.

Group (B) Bangladesh. Nepal. Pakistan

This approach will expedite time and resources. and ensure meeting the deadline of early November for the CPSC Board Meeting.

Phase III - Report Preparation

Estimated Duration

We estimate this initiative to take approximately fifteen (15) man weeks to complete, beginning October 01 and ending February 15, 1993.

BUDGET AND PROFESSIONAL FEES

Airfare

Group A (Korea/Thailand)	1 pax	$ 1,000	
Group B (Nep.Bang.Pak).	1 pax	1,700	
			$ 2,700

Per Diem

City	USAID Rate	# days	Totals	
Seoul	$186	4 x 1 pax	744	
Bangkok	163	-do-	652	
Karachi	163	5 x 1 pax	615	
Dhaka	163	-do-	815	
Katmandu	163	-do-	815	
				$ 3,841

Professional Fees

Chief of Party $400/day x 13 days	$ 5,200	
Field Consultants (3) $200/day x 64 man days	12,800	
		$18,000
Clerical	$ 1,500	
15% Overhead	3,906	

GRAND TOTAL $29,947

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REPORT PREPARATION/BILLING

The consultant shall prepare the first draft and submit five copies to CPSC on or before 15 January 1992. and an approved revised draft to the Senior Administrators Conference on 25-30 January 1993.

Six (6) final camera ready copies of the final report will be submitted on or before 01 March 1992.

For the terms and conditions specified. CPSC shall pay Mr. Philip J. Gielczyk the amount of US$ THIRTY THOUSAND DOLLARS ($30,000.00) as follows:

US $18,000 upon receipt of the signed contract

US $ 7,000 upon submission of the draft report

US $ 5,000 upon receipt of the final report

CONFORME:

PHILIP J. GIELCZYK
President

10/13/92
DATE

DR. C.K. BASU
Director
CPSC

DATE

WITNESS:

Annex B

Colombo Plan Staff College
Corporate Planning Project
WORK PLAN - USABC

ACTIVITIES	OUTPUTS	MONTHS: October 1	2	3	4	November 1	2	3	4	December 1	2	3	4	January 1	2	3	4
1. Formalization of project agreement	Signed PA																
2. Orientation & Planning meetings between CPSC-CPC & USABC consultants	Minutes																
3. Formulation of Project Framework - Scope of Work	Project Framework																
4. Draft Corporate Plan Project Framework (CPPF)	Draft CPPF																
5. Refinement of CPPF	Agreed CPPF																
6. Development of work plan and implementation schedule	Work Plan																
7. Design of data-gathering phase																	
7.1 Preparation of questionnire	Draft questionnaire																
7.2 Pre-test/refinement	Final questionnaire																
8. Data-gathering																	
8.1 Primary data																	
8.1.1 Country visits	Reports																
8.1.2 Interviews of key informats (business/GO)	Filled questionnairers																
8.2 Secondary Research	Notes																
9. Data consolidation and processing																	
10. Data analysis & interpretation																	
11. Report writing	Draft report																
12. Editing & packaging	Packaged draft report																
13. Submission of draft report	Draft report																
14. Review of draft report by CPSC	Corrected report																
15. Printing of report																	
16. Submission of Final report to CPSC March 1, 1993	Final Report																

COLOMBO PLAN STAFF COLLEGE FOR TECHNICIAN EDUCATION
CORPLAN STUDY PROJECT

Dear CPSC Staff,

As you already know, CPSC with the assistance of the United States Agency for International Development (USAID) has commissioned Phil Gielcyck and the Associated Resources for Management and Development (ARMDEV) to conduct a survey in preparation for the Five-Year CPSC Corporate Plan.

This plan is intended to enhance the management of CPSC in meeting the requirement of Colombo Plan member countries in technician education.

Research Specialist from ARMDEV visited Seoul, Bangkok, Kathmandu, Dhaka, Karachi and of course Manila the last three weeks. Certain trends in responses have appeared. The following questions are based on preliminary findings from the survey.

As a staff member of CPSC please respond to the questions candidly. Rest assured your answers will be treated in strict confidence.

Thank you for your cooperation

CORPLAN SURVEY TEAM

I. ABOUT YOURSELF

Please fill the blanks.

1. Age:_____
2. Sex:_____
3. Highest Educational qualification:_____
4. Length of work experience in Voc/Tech Education/Training (TVET) in years:_____
5. Present Position:_____
6. How long have you been with CPSC?_____

II. ABOUT CPSC

1. The image of CPSC as a regional resource center for vocational and technical education development (Please circle the number which best describes your observation of CPSC capability.)

Poor			Excellent
1	2	3	4

2. Circle the number that best describes your level of satisfaction on the following CPSC aspects:

	Low			High
Faculty competence/expertise	1	2	3	4
Administrative support staff competence	1	2	3	4
Management capability of CPSC operations	1	2	3	4
Adaptability to change and to innovate	1	2	3	4
Responsiveness to country needs	1	2	3	4
Linkage/networking with other TVET institutions	1	2	3	4
Resourcefulness to increase funding base	1	2	3	4

What are the strengths of CPSC?

_____
_____
_____
_____

What are its weaknesses?

_____
_____
_____
_____

3. Do you agree or disagree with the following statements? If not, why not? If you agree, what do you suggest CPSC do in the next five years?

3a. CPSC Roles. CPSC should function more as a clearinghouse or information center on technician education development, as catalyst/broker to supply experts and financial resources to member countries, as institution-builder and a grant-maker rather than a generally training institution.

_____
_____
_____
_____
_____

3b. As a training resource, CPSC should offer basic/fundamental courses on tech/voc education development in the regional level. It should assist members organize specialized technical training courses in-country.

_____
_____
_____
_____
_____

3c. Research and development capability of most member countries are weak. CPSC should continue to conduct regionwide R & D moreover, it should provide financial and long-term (at least one semester) experts to build in-country R & D capability.

3d. Aside from short-term seminars/workshops, CPSC could best assist member countries through long-term consultancy (at least one semester) to achieve institutionalization especially in tech/voc program development.

3e. CPSC will not be able to meet the changing and increasing demands of all member countries by itself. It should therefore collaborate more with member countries and related agencies; and it should expand its network especially with other international and regional organizations.

3f. CPSC has perennially suffered from inadequate resources albeit financial, material or human. It must make representations to increase member country contributions (financial and experts), widen its international and governmental grant support, and lead in creating collaborations with private industries.

Other comments

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COLOMBO PLAN STAFF COLLEGE FOR TECHNICIAN EDUCATION

Dear Colleague,

Greetings!

The Colombo Plan Staff College (CPSC) for Technician Education with the assistance of the United States Agency for International Development (USAID) is conducting a survey in preparation for the Five-Year CPSC Corporate Plan.

This plan is intended to enhance the management of the program of the CPSC in meeting the development requirements of the member countries in the region.

Please respond to the questions honestly. Rest assured your answers will be treated in strict confidence.

Thank you for your cooperation.

CORPLAN SURVEY TEAM

I ABOUT YOURSELF

Directions: Please answer the items by filling in the blanks.

1. Age: _____
2. Sex: _____
3. Highest educational qualification: _____
4. Length of work experience in Voc/tech education in years: _____
5. Present position: _____
6. How long have you known CPSC? _____

II ABOUT CPSC

May I invite you to recall your knowledge of and experiences about the College and then answer the items as requested.

1. On **CPSC CAPABILITY** (as a regional organization)
Please circle the number that describes how you feel about the ability of CPSC to assist member countries:

1.1 The image of CPSC as a regional resource center for vocational and technician education development.

Poor			Excellent
1	2	3	4

1.2 The CPSC since its inception has been guided in its programs/activities by this mandate:

"To assist the member countries of the Colombo Plan in the improvement of the quality of technician education and training in the countries of the region and, on an equitable basis

- *undertake staff development training and research and development activities;*
- *serve as a regional forum for discussion; and*
- *provide an advisory and resrouce service."*

The CPSC mission

is slightly achieved			is greatly achieved
1	2	3	4

needs change			does not need change
1	2	3	4

1.3 Draw a circle around the number that describes your level of satisfaction on the following CPSC aspects:

	Low			High
Faculty competence/expertise	1	2	3	4
Administrative support staff competence	1	2	3	4
Efficiency of administration and supervision of CPSC operations	1	2	3	4
Adaptability to change and to innovate	1	2	3	4
Responsiveness to country needs	1	2	3	4

	Low			High
Resourcefulness to increase funding base	1	2	3	4

1.4 For additional income, CPSC should market its services (training, R&D and consultancy) to the private sector and/or other requesting agency (on top of its usual assitance to member countries).

Strongly Disagree			Strongly Agree
1	2	3	4

1.5 Considering the perceived problems and opportunities within the next five (5) years, what **recommendations** could you offer to enhance the ability of CPSC to respond more effectively to the needs of member countries?

_____

_____

_____

2. On TRAINING AND TECHNOLOGY TRANSFER
Please draw a circle around the number which describes how you feel about CPSC training and technology transfer.

2.1 Content of training

Not useful to my job			Very useful to my job
1	2	3	4

Does not incorporate current trends			Incorporates current trends
1	2	3	4

2.2 Process of training

Boring			Interesting
1	2	3	4

Unsystematic			Systematic
1	2	3	4

Non-Participative			Participative
1	2	3	4

2.3 Training Materials/Aids

Inappropriate			Appropriate
1	2	3	4

Not user-friendly			User-friendly
1	2	3	4

Adequate			Inadequate
1	2	3	4

2.4 Transfer of Training (follow-up)

Not built in the training program			Built in the training program
1	2	3	4

Not supported by home/office			Supported by home/office
1	2	3	4

Not followed-up by CPSC			Followed-up by CPSC
1	2	3	4

2.5 Alternative CPSC training scheme using modules via distance study

Should not be adopted			Should be adopted
1	2	3	4

2.6 Males and Females must have equal opportunity to participate in training

Disagree			Agree
1	2	3	4

2.7 Check the five (5) priority CPSC training areas in the next five years.

_____Management of TVE institutions
_____Curriculum Development and Evaluation
_____Instructional Design and Methodology
_____Research and Development Methods and Techniques
_____Environmental Education
_____Entrepreneurship and Small-Scale Business
_____Women and Development
_____Computer Applications
_____Staff Development/HRD
_____Agriculture Education Technology and Management
_____Manpower Planning
_____Training of Trainors
_____Module Development and Evaluation
_____DACUM (Developing a Curriculum)
_____Competency Based Technician Education (CBTE)
_____Human Behaviour in Technician Institutions
_____Others, Please specify _____

2.8 Holding regional training courses occasionally in any member country to enhance collaboration

Should not be adopted			Should be adopted
1	2	3	4

2.9 What **recommendations** could you offer to enhance the training program of CPSC and ensure its transfer to the trainees' home country?

_____
_____
_____

3. On LINKAGES AND NETWORKS

Please draw a circle around the number which describes best what you feel about CPSC's linkages and networks.

3.1 CPSC relation with APSDEP/ILO, INNOTECH, VOCTECH/SEAMEO

Vague			Clear
1	2	3	4

Needs to be established informally			Needs to be established formally
1	2	3	4

3.2 CPSC linkage with industry/private sector/NGOs

Unsatisfactory			Satisfactory
1	2	3	4

CPSC linkages with Training Centres in member countries

Unsatisfactory			Satisfactory
1	2	3	4

CPSC networks with international organisations (i.e. ADB, JICA, UNESCO, ILO, GTZ, CFTC, CIDA, etc)

Unsatisfactory			Satisfactory
1	2	3	4

3.3 CPSC capability to attract collaborators for linkage/networking

Low			High
1	2	3	4

3.4 What **recommendations** could you offer to CPSC to encourage industry and the private sector to collaborate with its program/activities

_____

_____

_____

4 On CONSULTANCY SERVICES

4.1 What is the distinctive strength/expertise of CPSC over other related TVE organisations?

_____

_____

4.2 Rate your level of satisfcation on the following by drawing a circle around the number which describes best your feeling:

	Low			High
Quantity of consultancy services	1	2	3	4
Quality of consultancy services	1	2	3	4
Immediacy of response to request	1	2	3	4
Availability of requisite quality of consultants in CPSC	1	2	3	4

4.3 Marketing of CPSC consultancy services should be encouraged.

Strongly Disagree			Strongly Agree
1	2	3	4

4.4 What should be CPSC priority concerns in the next five (5) years to enhance its consultancy services. Give your recommendations to meet these concerns.

_____

_____

_____

_____

5. On RESEARCH AND DEVELOPMENT

5.1 Please draw a circle around the number which best describes the level of your satisfaction about the following:

	Low			High
Adequacy of research studies	1	2	3	4
Adequacy of Development activities (instructional materials, modules)	1	2	3	4
Usefulness of R&D outputs	1	2	3	4
Dissemination of R&D outputs	1	2	3	4
Capability of CPSC Faculty for R&D	1	2	3	4
Overall CPSC R&D program effectiveness	1	2	3	4

5.2 Enumerate five (5) priority areas for CPSC R&D projects for the next five years (Refer to 2.7 for a tentative list)

_____

_____

_____

_____

5.3 CPSC should sustain effectively organized R&D activities in its academic program.

Strongly Disagree			Strongly Agree
1	2	3	4

5.4 What recommendations could you offer to CPSC to improve its R&D program?

_____

_____

_____

III. ABOUT TVE IN YOUR COUNTRY

1. On a scale of1(low) to 4(high), rate your level of satisfaction on the following:

		Low			High
1.1	Efficiency of institutional administration and supervision	1	2	3	4
1.2	Adaptability of the TVE management to change and to innovate	1	2	3	4
1.3	Requisite quality of teaching staff	1	2	3	4
1.4	Responsiveness of the TVE curriculum to current and changing requirements of industry and the labour market	1	2	3	4

		Low			High
1.5	Adequacy of facilities and equipment	1	2	3	4
1.6	Resourcefulness of the TVE institutions to generate income and become self-reliant				
1.7	Attractiveness of TVE courses to secondary school graduates	1	2	3	4
1.8	Employability of TVE graduates	1	2	3	4
1.9	Effectiveness of Institution-Industry cooperation	1	2	3	4

2. What are the 5 priority concerns of TVE in <u>your country</u> which require assistance <u>from CPSC</u> (institution capability building, training, research, development of instructional materials, establishing linkages, and other consultancy services).

_____

_____

_____

3. What <u>strategies could you recommend for CPSC to meet these 5 priority concerns</u> indicated in #2?

_____

_____

_____

4. What are the <u>strengths and resources</u> of the TVE system in your country that could be offered to CPSC in terms of:

Training Facilities

_____

_____

Faculty Expertise

_____

_____

Access to Fund Sources

_____

_____

Others, please specify

_____

_____

5. What new approaches/techniques could you adopt to encourage the participation of industry and the private sector in improving TVE system in your country?

_____

_____

-- THANK YOU FOR YOUR COOPERATION! --

COLOMBO PLAN STAFF COLLEGE
FOR TECHNICIAN EDUCATION

Dear Colleague,

Greetings!

The Colombo Plan Staff College (CPSC) for Technician Education with the assistance of the United States Agency for International Development (USAID) is conducting a survey in preparation for the Five Year CPSC Corporate Plan.

This plan is intended to enhance the management of the programs of the CPSC in meeting the development requirements of the member countries in the region.

Please do not leave any item unanswered. Your honest answers and recommendations will be valuable in designing the CorPlan of CPSC. Rest assured your answers will be treated in strict confidence.

Thank you for your cooperation.

CORPLAN SURVEY TEAM

I. About Yourself

Directions: Please answer the items by filling in the blanks.

1. Age: _____
2. Sex: _____
3. Name of College/Polytechnic: _____
4. Course Being Pursued/Pursued: _____
5. Year Level: _____

II. About Your College/Polytechnic

May I invite you to take a look at your College or Polytechnic and recall your experiences about it. Then answer the items as requested.

1. On the **image of Technician Education in your country and your College** (as a technician education institution)

1.1 Social acceptability of techvoc education in my country

Low			High
1	2	3	4

1.2 Image of my College as an institution of vocational and technician education

Poor			Excellent
1	2	3	4

1.3 My College is one of the best if not the best institution in technician education in the country

Strongly Agree			Strongly Disagree
1	2	3	4

1.4 Graduates from my College are employable.

Strongly Agree			Strongly Disagree
1	2	3	4

1.5 Draw a circle around the number that describes your level of satisfaction on the following aspects of your college:

	Low			High
Faculty competence/expertise	1	2	3	4
Efficiency of Vocational Guidance and Placement Services	1	2	3	4
Library Services	1	2	3	4
Resource Learning Centers, if any	1	2	3	4
Physical appearance of buildings and other structures	1	2	3	4

2. On the **Curricular Offerings**

Draw a circle around the number that describes your level of satisfaction on the following aspects of curricular offerings in your College:

	Low			High
Responsiveness to country needs	1	2	3	4
Adequacy of shop courses	1	2	3	4
Relevance of cognitive/theoretical courses to shop courses	1	2	3	4
Adaptability to change and to innovate	1	2	3	4
Type of teaching methods, facilities and equipment	1	2	3	4
Usefulness of courses to job requirements	1	2	3	4
Overall effectiveness of curriculum	1	2	3	4

3. On **Training**

Please draw a circle around the number which describes how you feel about your training.

3.1 Curriculum Content

Theoretical			Theoretical & Practical
1	2	3	4
Does not incorporate current trends			Incorporates current trends
1	2	3	4
Inadequate			Adequate
1	2	3	4

3.2 Process of Training

Not organized			Organized
1	2	3	4
Traditional and outdated			Updated and modern
1	2	3	4
Disjointed & fragmented			Integrated & Continuing
1	2	3	4
Boring			Interesting
1	2	3	4

3.3 Training Materials/Aids

Inappropriate			Appropriate
1	2	3	4
Inadequate			Adequate
1	2	3	4
Outdated			Updated
1	2	3	4

3.4 On-the-job training/Industry Engagement

Unsystematic			Systematic
1	2	3	4
Boring			Interesting
1	2	3	4
Too short			Too long
1	2	3	4
Does not provide for practice and experience			Provides for practice and experience
1	2	3	4

III. Your Recommendations to Improve Technician Education in your Institution

_____

_____

_____

THANK YOU SO MUCH FOR YOUR COOPERATION!

COLOMBO PLAN STAFF COLLEGE
FOR TECHNICIAN EDUCATION

Dear Colleague,

Greetings!

The Colombo Plan Staff College (CPSC) for Technician Education with the assistance of the United States Agency for International Development (USAID) is conducting a survey in preparation for the Five-Year CPSC Corporate Plan.

This plan is intended to **enhance the management of the program of the CPSC in meeting the development requirements of the member countries in the region.**

Please respond to the questions **honestly.** Rest assured your answers will be treated in **strict confidence.**

Thank you for your cooperation.

CORPLAN SURVEY TEAM

COLOMBO PLAN STAFF COLLEGE
CORPORATE PLANNING PROJECT

Questionnaire for Private Sector

I. BASIC INFORMATION

A. Position _____

B. Name of Organization _____ _____

C. Country _____

D. Type of Business: _____ Extraction _____ Manufacturing _____ Services

E. Tick your category: _____ Chamber of Commerce _____ Labor union
_____ Business _____ Industry

II. TRENDS AND OPPORTUNITIES

1. In the next five years, list ten foreseeable changes in your company/country which will require skilled technicians or upgrading of technician skills. Why do you consider them priorities?

_____
_____
_____
_____

2. What are causing these changes and emerging needs?

_____
_____
_____

2.a What will be effective and relevant responses to technician education/training needs in your company/union/country in the next 5 years?

_____
_____
_____

3. What programs currently address technician education/training in your country/ union/company? Are local TVETs sufficient to meet emerging needs?

TVE Programs If not sufficient, why?

_____
_____
_____
_____
_____

3.a What percentage of your current employees/members are voc/tech graduates? _____
Has tech/voc training made a difference in any of the following among employees/members? Tick if the answer is yes.

_____ Change of status
_____ Change of position
_____ None of the above. Why? _____
_____ Employment marketability
_____ Others, specify _____

4. Are you collaborating with TVETs now? In what form?

_____
_____
_____

4.a. Does your company/union partner/contract with other agencies in manpower development? Are you satisfied with these services? If so, why? If not, why not? _____
_____
_____
_____

4.b. Would your company/union/chamber be interested in participating in a country advisory committee, if requested, to provide guidance to CPSC's policy-making and direction settling? _____

4.c. Would your company be willing to second your managers to serve as instructors in CPSC training programs? _____

4.d. Would your company be willing to sponsor a technician training center or school, or a particular skills training modules? _____
If so, what technical skills? _____
_____

4.e. Others. Please specify _____

5. What may be resources (monetary, human, material) in the private business/ industry sector which can be tapped to support TVET in your country?

_____
_____
_____

III. CPSC COLLABORATION

1. Have you heard of CPSC? If you have, what is your impression about the institution?

_____
_____
_____

2. Would your company/union/chamber be willing to explore collaboration with CPSC and/or your local voc/tech directorate in TVET efforts? _____
If so, how can it be done? _____
_____

COLOMBO PLAN STAFF COLLEGE FOR TECHNICIAN EDUCATION

Dear Colleague,

Greetings!

The Colombo Plan Staff College (CPSC) for Technician Education with the assistance of the United States Agency for International Development (USAID) is conducting a survey in preparation for the Five-Year CPSC Corporate Plan.

This plan is intended to enhance the management of the program of the CPSC in meeting the development requirements of the member countries in the region.

Please respond to the questions honestly. Rest assured your answers will be treated in strict confidence.

Thank you for your cooperation.

CORPLAN SURVEY TEAM

COLOMBO PLAN STAFF COLLEGE
CORPORATE PLANNING PROJECT

Questionnaire

(For Member Countries - TVE Directors and Dept. of Labor)

I. BASIC INFORMATION

A. Position _____

B. Name of Organization _____

C. Country _____

II. SITUATION ANALYSIS

1. What are current thrusts/needs in Technician Education/Training in your country?

_____
_____
_____

2. In the next five years, are there foreseeable changes which will require upgrading of technician skills in you country?

_____
_____
_____
_____
_____

3. What programs currently address technician education in your country? Are these sufficient to meet emerging needs?

TVE Programs — If not sufficient, why?

_____
_____
_____
_____
_____

3.a If not sufficient, what should be addressed immediately over the next five years?

_____
_____
_____

4. What should be the primary service areas of TVE in your country? Tick your choices.

_____ Training _____ Research/Development
_____ Consultancy _____ Linkaging/Networking

5. What has been the impact of voc/tech training among graduates? Tick any or all of the following:

_____ Change of status
_____ Change of position
_____ None of the above. Why? _____
_____ Employment marketability
_____ Others, specify _____

III. CPSC ORGANIZATION (Answer only if familiar with CPSC.)

1. What is your impression of CPSC?

_____
_____

2. If you have used CPSC services, are you satisfied with its delivery of services (training, research/development, consultancy? If not, why not? _____

_____
_____

Vision: CPSC as a regional resource center of excellence in technician education and training. (From Corporate Planning and Networking Consultative Meeting held on 01 - 05 June, 1992).

Mission: Improvement of technician education and training in CPSC member countries through appropriate training, research and development, and consultancy (TRDC) services. (From Corporate Planning and Networking Consultative Meeting).

"To assist the member countries of the Colombo Plan in the improvement of the quality of technician education and training in the countries of the region and, on an equitable basis:

* undertake staff development training and research and development activities;
* serve as a regional forum for discussion; and
* provide an advisory and resource service."

(From the Constitution of the Colombo Plan Staff College)

1. Do these statements capture your opinion regarding directions of CPSC in the next five years?

_____ yes _____ no

2. If no, why?

_____
_____
_____

3. Of the needs above, which are being responded to by CPSC? Which are not?

_____
_____
_____

4. Considering the perceived problems and opportunities in the next five years, what recommendations could you offer to enhance the ability of CPSC to respond more effectively to the needs of *your country*?

_____
_____
_____

IV. STRATEGIES AND SERVICE DELIVERY

A. Organization and Management (Answer only if familiar with CPSC)

1. Which of the following areas are plus factors of CPSC? Why do you consider them so? Draw a circle around the number that describes your level of satisfaction on a scale of 1 (low) to 4 (high).

					Why a winning factor?
Faculty competence/expertise	1	2	3	4	
Efficiency of administrative support	1	2	3	4	
Management capability	1	2	3	4	
Adaptability to change and to innovate	1	2	3	4	
Linkaging/networking with other TVE institutions	1	2	3	4	
Responsiveness of programs	1	2	3	4	
Resourcefulness to increase funding base	1	2	3	4	

B. Training/Teacher Education/Technology Transfer

1. Using the same 1-4 scale above, draw a circle around the number which describes how you feel about CPSC and your own country's tech/voc capabilities in training and technology transfer.

	CPSC				Tech/Voc Directorates			
Relevance of training designs to current country needs	1	2	3	4	1	2	3	4
Relevance of training to position of trainees	1	2	3	4	1	2	3	4
Quality of training programs	1	2	3	4	1	2	3	4
Quantity of training programs	1	2	3	4	1	2	3	4
Practical application of training undertaken	1	2	3	4	1	2	3	4
Training methodology	1	2	3	4	1	2	3	4
Training materials	1	2	3	4	1	2	3	4
Adequacy of training facilities	1	2	3	4	1	2	3	4
Quality of trainors	1	2	3	4	1	2	3	4
Use of distance study modules	1	2	3	4	1	2	3	4

2. Check the five (5) priority training areas needed in your country in the next five years.

_____ Management of TVE institutions
_____ Curriculum Development and Evaluation
_____ Instructional Design and Methodology
_____ Research and Development Methods and Techniques
_____ Environmental Education
_____ Entrepreneurship and Small-Scale Business
_____ Women and Development
_____ Computer Applications
_____ Staff Development/HRD
_____ Agriculture Education Technology and Management
_____ Manpower Planning
_____ Training of Trainors
_____ Module Development and Evaluation
_____ DACUM (Developing a Curriculum)
_____ Competency-Based Technician Education (CBTE)
_____ Human Behaviour in Technician Institutions
_____ Others, please specify _____

C. Research and Development

Using the same scale above, draw a circle around the number which describes best what you feel about CPSC's and your country's capability in research and development activities.

	CPSC				Country			
Adequacy of research activities	1	2	3	4	1	2	3	4
Adequacy of development activities	1	2	3	4	1	2	3	4
Usefulness of R & D outputs	1	2	3	4	1	2	3	4
Dissemination of R & D outputs	1	2	3	4	1	2	3	4
Capability for R & D	1	2	3	4	1	2	3	4

Specify what R&D areas should be responded to by CPSC immediately in the next 5 years: ____

____

____

D. Networking (Linkage)

1. Using the same scale above, please draw a circle around the number which describes best what you feel about CPSC, Tech/Voc Directorates and private sector linkages and networks.

	CPSC				Country			
Linkage with private sector e.g. IBM, Samsung, etc.	1	2	3	4	1	2	3	4
Linkage with training centres in member countries	1	2	3	4	1	2	3	4
Relationships with APSDEP/ILO, INNOTECH, VOC/TECH/SEAMEO, AIT, etc.	1	2	3	4	1	2	3	4
Networking with international organizations (i.e. ADB, JICA, GTZ, CIDA, etc.)	1	2	3	4	1	2	3	4
Capability to attract collaborators	1	2	3	4	1	2	3	4

2. What recommendations could you offer to CPSC to encourage industry and the private sector to collaborate with its program/activities?

____

____

____

E. Consultancy (Educational planning, institutional development) (Answer only if familiar with CPSC.)

1. Using the same scale as above, rate your level of satisfaction on the following by drawing a circle around the number which best describes your feeling:

Quantity of consultancy services	1	2	3	4
Quality of CPSC consultancy services	1	2	3	4
Quality of CPSC consultants	1	2	3	4
Immediacy of response to request	1	2	3	4
Relevance of consultancy service areas to needs of member countries/region	1	2	3	4

2. What [illegible] consultancy services in your country in the next five years? ______________________________

____

____

V. [illegible]

1. What are possible resources (monetary, human, materials) which can be tapped in support of TVE in your country? Can CPSC access these resources also?

____

____

____

2. Do you think the private sector should be involved in TVE? How can the private sector be involved?

____

____

____

3. What specific recommendations can you give to ensure the long-term financial viability and growth of tech/voc education in your country? In support of CPSC?

____

____

____

4. How can CPSC and your organization better collaborate in the future?

____

____

____

VI. OTHER COMMENTS

Do you find there is a continuing regional role for CPSC? Why?

[illegible]

USAID-Funded CorPlan Project

Major Findings and Recommendations on CPSC Capability

KRAs	Findings	Recommendations
ORGANIZATION AND MANAGEMENT CAPABILITY Objective: Strengthened organization and Management capability	- CPSC still major regional resource for technician education. All 7 representative member country respondents will continue to need CPSC assistance in enriching and strengthening technical/vocational education and training (TVET) in the next five years.	- CPSC should be supported to continue its unique role as a resource center for technician education for Colombo Plan member countries. An organizational development process to evolve a series of Five-Year Corporate Plans on a regular basis should involve policy-makers and Senior CPSC Staff. The Five-Year plans should be reviewed annually.
	- Given the regional trend for expanding industrial and agricultural development, emergence of new and advance technologies, future TVET assistance requirements of the representative member countries will center on four functions: training services (TS), research and development (R/D), consultancy/ technical assistance (TA/C) and linkaging networking (L/N).	- CPSC should continue its mission in the areas of of training, research and development, technical assistance/consultancy and linkaging/networking.
	- In most countries, bias for resource allocation and policy preference is for formal trainings and academic schooling. TVET budget allocation is usually much less in spite of increasing demand for TVET programs.	- CPSC in collaboration with national TVETs should play advocacy role in facilitating healthier attitude toward TVETs.
	- CPSC management strategy while addressing universal concerns in TVET in the region should also be responsive to individual member country's need for growth and assistance.	- To effectively address country-specific demands and needs, CPSC will require a set of Desk Officers who shall be tasked with: program development, fund sourcing, institutional networking and technical assistance. These personnel shall be hired or seconded by member countries at their expense as their gesture of concern and goodwill to the Colombo Plan.
	- The CPSC Director is overloaded with trivialities. The organization is weak in strategic planning and programming.	- Streamline the functions of the CPSC Director.

	:- Senior staff is too small given increasing demands for services.	:- CPSC staff roles and functions, staffing pattern should be re-examined. Strengthen Senior Staff positions and capability, refocus support staff functions.
	:- No compilation of operating procedures exist for the organization.	:- A manual of operating procedures should be compiled to include: program development and corporate planning, administrative and financial management, evaluation and monitoring, and personnel management.
TRAINING SERVICES Objectives: More focused training and/or projects relevant and priority to country/system specific requirements	:- Given development trends and local factors in each member country and sub-regions, training needs will differ. CPSC is considered the main source of training services to upgrade TVETs in the representative member countries in the next five year	:- In consultation, develop a program development system particular to each country. Desk Officers should be responsible for formulation, implementation and monitoring.
	:- Member countries value CPSC regional, sub-regional and in country trainings. Senior Officers from the South Asia representative countries, Philippines and Papua New Guinea and middle level officers and faculty have benefited from these trainings with more knowledge and skills, more confidence to perform effectively. Senior administrators request for advance courses for their continued professional growth. The regional and sub-regional trainings are valuable linkaging/networking opportunities also.	:- Continue opportunity for TVET Officers to participate in regional and sub-regional courses. Explore providing graduate or post-graduate academic credits for successful participation.
	:- CPSC is generally an effective training institution but with increasing demand for training services in the region, will not be able to respond to demands given the current size of its faculty. Some TVET institutions in member countries have world-class competence and facilities. They are willing to partner with CPSC in maximizing training opportunities in the region.	:- To maximize multiplier effect, CPSC should consider creating an accreditation system whereby "TVET service centers" located in member countries and capable of delivering technology required, can render training services.
	:- While training needs are different from country to country, there are commonalities especially in the core courses like management of TVE institutions, teacher training or training or trainors, program	:- CPSC should collaborates with member countries in prioritizing training courses for regional sub-regional and in-country offerings.

development, manpower planning, research and development methods, curriculum and materials development upgrading. Content should integrate emerging thrust areas like entrepreneurship, environment, women and computer application. Moreover, member countries will need training services on new technologies like computer application, environment, entrepreneurship, and women. Some countries identify other priorities like tourism for Nepal, adoption of traditional production techniques to modernization for South Asia, or distance study, agritech for Bangladesh. In addition, some countries expressed the need to upgrade specific skills training curriculum, materials, equipment, etc. like electronics for Bangladesh and ceramics for Nepal.	
- Training resource materials not contextualized to users needs and local situation of member countries. Inadequate in quantity. English meduim not helpful for some technicians with low English proficiency. Some countries considered materials above average in quality.	- CPSC catalyze development of training resource materials for each country to be shared with others. In some instance materials should be in the local language.
- Follow-up of training not built in training programs. Little support from home office.	- Strengthen follow-up mechanism to maximize training impact: to ensure application and utilization of learnings.
- Generally, content and methodology of courses (regional, sub-regional and in-country) were rated average or above average. Some concerns include: - use of English as medium is a hindering factor both for some invited lecturers and participants. - some courses (in-country) are not challenging or interesting enough so attendance decrease	- Create a regional pool of highly qualified and experienced experts in TVET. Encourage use of regional and local resource persons where possible. - Localize training or conduct country specific trainings to respond effectivley to local needs.
- men and women have equal access but fewer women avail of CPSC courses.	- Encourage more women to participate.

	:- Transfer of skills/technology is not always achieved through by short-term course.	:- Lengthen training duration to achieve comfortable level of competency/transfer of technology not "half baked" trainees; couple with follow-ups and regular meetings/conferences of CPSC alumni to update, scan and assess development of member countries.
	:- Selection of candidates for regional and sub-regional trainings is affected by efficiency of communciation/invitation. Two countries cited one or two weeks notice so that selection not always the most appropriate.	:- Strengthen selection process of participants to ensure those most appropriate are selected. Examine communication system in this regard.
	:- Private sector/industries interested in participating in CPSC training and willing to pay for services; willing to provide resources (facilities,instructors, scholarship) etc. Some collaboration exist through OJTs, joint funding, scholarship, seconding managers as faculty. Involvement not maximized however	:- Open CPSC training to private sector/industries. Engage providing facilities, intership/ apprenticeship, sponsorship of modules, upgrading equipment, etc. Identify opportunities for more collaboration.
TECHNICAL ASSISTANCE/ CONSULTANCY Objective: Expanded technical assistance services to the related publics	:- Demand for consultancy to increase with emerging needs and desires for institutional capability. CPSC expected to provide more TA or catalyze TA/C To Member countries.	:- CPSC develop capability for more vigorous consultancy services to member countries. Must collaborate with related institutions to provide services, and fund sourcing.
	:- Private sector/industries and non-members of Colombo Plan need TA/C from CPSC. Willing to pay for services.	:- Explore opportunities for TA/C to private sector/ industries and other countries.
	:- Member countries receive bilateral technical assistance for TVET from UNDP/ILO, ADB, ADB. However suggest CPSC assist/support in developing concerted TA/Cs from donor agencies. CPSC cultural sensitivity to member country needs a plus factor.	:- CPSC serve as catalizer and advocate for TA/C in TVE in the region. Assist donors in delivery of TA/C.
	:- Short-term TA/Cs been beneficial; however long-term TA/Cs increase likelihood of skills transfer and production of outputs.	:- Explore pros and cons of long term consultancy as opposed to short-term.

	:- again member countries foresee TA/C needs in different areas. Expect CPSC's assistance as provider or catalyzer of TA/C services in the next 5 years.	:- Assist member countries to identify, prioritize and plan TA/C.
RESEARCH AND DEVELOPMENT Objective: Systematically improved research and development organization activities	:- R/D viewed essential to improving TVET and making informed decisions. Member countries need to strengthen R/D capability especially expertise and funding. :- CPSC has small R/D unit with minimal budget support. :- Past research projects helpful; outputs not disseminated	:- CPSC collaborate with member countries to assess R/D needs and priorities for organizing or upgrading. :- CPSC assist member countries develop R/D centers to maximize multiplier effect These centers can form networks among themselves for mutual benefits. CPSC functions as host institution. :- Revitalize and strengthen CPSC R/D section responsible for formulation, implementation, monitoring and evaluation, and fund-sourcing of R/D programs for CPSC and member countries. :- Develop mechanism for formally sharing results of R/D to wider audience like monograph mailouts, integration in conferences and training courses,etc.
	:- Clearinghouse for emerging technology is critical role for CPSC. Monitors, inventory and disseminate new technologies.	:- Develop CPSC capability in technology scanning and dissemination.
	:- Member countries identified varying R/D priority needs. Common areas include models of effective manpower planning, models for collaboration between public/private sectors, management of TVET institutions, tracer studies for graduates' employment, etc.	:- CPSC catalyze R/D projects in identified priority areas of each member country.
Linkage and Networking	:- Generally weak spot - vague with regional agencies like APSDEP, ILO, VOCTECH (SEAMED); satisfactory with donor agencies like ADB, USAID, JICA; minimal or non-existent with private sector.	:- Establish or strengthen formal L/N function at CPSC. Desk Officers should be responsible.

Objective: Enhanced strategy and mechanism for establing and sustaining workable networks and linkages.	Potential impact on resource base is phenomenal if aggressively pursued. Linkage between and other agencies mentioned above perceived informal. - Expressed need for information center or clearinghouse where up-to-date info on TVET, research results are collected and disseminated to member countries and others, on a regular basis. CPSC has Regional Information Center	- Maintain regular contact, encourage collaborations with regional/international training institutions and programs like APSDEP, ILO, INNOTECA, etc. - Provide continued orientation, update to new heads of national TVETs, Ministries, institutions (regional, and international). - CPSC should revitalize and strengthen its information dissemenation functions. The CPSC Regional Information Center should be strengthened and tasked to fulfill this function. Develop a system for information sharing and dissemination.
OTHERS Objective: Expansion of CPS Resource base	- As described above, increased demands and needs in the region for TVE training, R/D, TA/C, collaboration and linkage will require increased, improved, varied assistance from CPSC. Beyond monetary implications, opportunities for collaboration is tremendous. Attitude for collaboration and partnership positive. CPSC stands to benefit from a systematic, planned resource development strategy. While member countries contributions increase at 6% annually, attitude seems to be of maintenance. While funds may be sufficient to maintain current level of services, CPSC has soft funding base. CPSC as a training institution with a unique role in TVE is in a strong position to attact resources and partnerships. Many working models exist.	- It is recommended that the following opportunities in linkaging with private sector/industries and with donor agencies be considered: I. Opportunities for Donor Agencies: Technical assistance funds for any of the following o Strengthening of R/D program at CPSC o Revitalization of CPSC Regional Information Center including set-up of info dissemination facilities. o Establishment of computerized data-base of accredited TVET consultants and TVET institutions. o Set-up of accreditation system of consultants and institutions and actual accreditation of a desired number.

Opportunities should not be ignored to enhance CPSC capability to fulfill its vision as "regional resource center of excellence in technician education and training."	o Development of CPSC Manual of Operating Procedures o Continued funding of training courses, consultancy services, research and development projects o Instructional materials development and upgrading; training resource materials, development, printing and dissemination. o Library and equipment upgrading o CPSC consultancy for institutional strengthening of TVET institutions. II. Opportunities for Private Sector/Industry o Establish scholarship programs tech/voc in high school and/or college o Establish professorial chairs o Expand school-job trainings, apprenticeships, internships. o Recruit corporate managers and supervisors as tech/voc faculty or instructors o Advocate for increase of in-plant training programs o Cost-sharing in building training centers, in conducting training programs, and use of facilities and instructors. o Create or strengthen national/local tech/voc advisory Boards or Councils with private sector/ industry representative. o Source out project grants from foundations of big corporations - for special training courses, research projects, materials production especially in local language.

Annex E1

CONTRACTOR QUALIFICATION

Philip Gielcyck and Associates, formerly known as Corporate Search Professional, Inc. is a Philippine-based management consulting firm specializing in corporate level executive search, trade and investment consultancy, joint ventures and distributor search, and business conference and convention management.

Philip Gielcyck and Associates also manages the country operations of the U.S. - ASEAN Business Council, the U.S. - Philippine Business Committee and MACRO International.

The company has been operating in the Philippines for eleven years and is considered one of the leading authorities on U.S.-Philippine and U.S. - ASEAN trade and investment issues.

CONTRACTOR QUALIFICATION

1.0 ORGANIZATIONAL CAPABILITY

Associated Resources for Management and Development, Inc. (ARMDEV) is a private service-oriented training and consulting firm committed to the development of individuals, organizations and communities. It recognizes the paramount importance of human element in development and the need to emphasize the formulation of programs which are truly responsive to the needs and aspirations of its clientele. ARMDEV is one firm that projects its efforts towards the direction where it can be contributive to the social and economic reconstruction of the Philippines as well as its neighboring countries. Through the delivery of a wide range of client-catered services, ARMDEV views itself as a facilitator of change and an advocate of development.

Then known as Philippine Cultural Communications Service Corporation (PCCS) which was established in 1980, ARMDEV has evolved from a project developer and manager of language and culture training programs for local and foreign clients into a multi-faceted consultancy. Its envisioned role expanded to include services in the major areas of research studies and evaluation, project management and develoment, social services and community development, organization development and management, and training and education. To date, ARMDEV has branched out into various avenues of socio-economic endeavors.

ARMDEV has always invested substantially in training, research and development projects, particularly those in the area of socio-economics as the firm aims to contribute to the amelioration of the economic conditions of the country. Linkages with development training organizations and academic institutions as well as private agencies have been established. ARMDEV has a ready pool of trainors, researchers, evaluators, statisticians, and computer specialists capable of training, reseach and evaluation projects.

1.1 Service Orientation

In response to the prevailing regional disparities and economic difficulties of the 80s, ARMDEV's service philosophy has been to assist agencies in implementing a mix of community-based projects using an interdisciplinary approach. Thus immersion in various communities throughout the country has included services to tribal communities, refugee settlements, rural farming and fishing villages, various women's groups, trade and labor associations and local business

communities among others. Through its inter-disciplinary trained professionals and staff and its extensive practical experience in the field, ARMDEV has been able to help communities cope with change and manage their own development agenda.

The present government emphasis on utilizing non-governmental organizations to help in community building has expanded ARMDEV's participation in government projects.

1.2 Scope of Services

ARMDEV's services are mutually reinforcing, designed to provide clients with a range of technical, planning, management, operational and educational assistance in the pursuit of development.

1.2.1 Training and Human Resource Development (HRD)

Institution building and organizational development usually require a program of human resource development to enable members of the group to acquire the attitudes, knowledge and skills needed to manage the desired changes. Complementary to its Organizational Development Services, ARMDEV has a developed expertise in assessing the human resources potential of an organization, its training needs and designing and implementing programs to develop the human resource capabilities of an institution.

These human resource development programs include the necessary component of building the organization's capability to assess the development of its human resources to institute the necessary interventions and promote its continuing growth.

ARMDEV has a long track record in the design and conduct of training programs both in the local and international settings. The corporation's range of training expertise includes skills development in a variety of areas which include training needs analysis, development of training design, facilitating training sessions, training management and evaluation of training. Training programs undertaken by ARMDEV included: training on action research methodologies, analysis and interpretation, trainor's training, project management, entrepreneurial development training, communications and human relations, vocational skills training to Indo-Chinese refugees, language and acculturation to expert consultants and staff of international

agencies, and private companies.

ARMDEV has gained recognition for its quality training programs conducted in various sectors; i.e. government, development local and international agencies, business and other NGOs.

Training is also built into any rural development project it undertakes to ensure institutionalization of the technology with the client groups.

1.2.2 Organizational Development

The introduction of any interventions for institutional change is most effective when those involved in the process of change participate in organizational diagnosis, designing and implementing the various interventions necessary as well as monitoring and evaluating the effects of the intervention. Thus the interventions themselves, as well as the designing of interventions become an inherent part of the organization's management tools in its effort to become responsive to changing demands.

ARMDEV has a developed expertise in assisting institutions including those with grassroot associations in their organizational development efforts, adhering closely to its philosophy of institution building for change management.

Assistance in this area covers an assessment of the organization's structures and human resources, identifying opportunities for improving information flow, decision making processes, developing institutional processes to respond to felt needs and external demands.

Institution building has always been a priority on ARMDEV's agenda and has constituted its primary service, integrating this in all its corporate services.

1.2.3 Research and Evaluation

Generating the information necessary for program planning and policy making through research has been a service that ARMDEV has provided management of various local and international organizations. Community based action research, surveys, impact evaluations, assessment of policy and legal instruments and agency programs, as well as building institutional

capability for these have been ARMDEV's range of services rendered to different organizations.

ARMDEV's community based experience has added considerably to its perspective in developing research designs as well as conducting surveys and evaluations for program benefits. It has stressed the use of participatory research techniques for cross- validation of data. This also ensures that the data is utilized not only by management but by different publics because the data generated then meets relevant information requirements. ARMDEV believes that use of participatory research techniques transfer research technologies to people who are then enabled to carry out research activities on their own.

A thorough understanding of existing conditions and issues and a valid interpretation of facts through a combination of research and observation methods is ARMDEV's approach to meeting a variety of specific end-uses for various clients.

* Rural/Urban Sectoral Studies
* Political and Socio-Cultural Studies
* Development Planning Studies
* Policy and Program Studies
* Legal Studies
* Environmental and Ecological Studies

1.2.4 Area Development Planning

Area development planning, particularly within the Integrated Area Development (IAD) approach has been a joint undertaking of ARMDEV and its affiliate organizations in addressing the problems of marginal productivity, regional disparities, resource depletion and environmental degradation in rural and urban areas of the Philippines.

1.2.5 Project Planning, Development and Management

ARMDEV provides technical assistance to government agencies, private and non-government organizations in packaging development projects - from conceptualization to implementation, operation and management of specific projects. With its traditional involvement in agriculture and rural development, ARMDEV offers assistance in urban development projects as well. Scope of services offered include:

* Development Planning Studies

* Feasibility Studies
* Financial and Economic Studies
* Sociological Studies
* Master and Sectoral Planning
* Project Identification
* Fund Sourcing
* Systems Design for Fund Management
* Project Programs, and Schedules Preparation
* Project Monitoring and Evaluation
* Systems Development
* Project Impact Evaluation

1.2.6 Agricultural/Aquaculture Project Development

Translating area development plans in rural areas into specific programs of action requires program and project-level planning for a variety of agricultural and aquacultural (e.g. mariculture, inland fisheries) projects. ARMDEV's experience in project development and feasibility studies take into account the range of technical, financial, environmental and socioeconomic dimensions of these fields.

1.2.7 Community Organization (CO) and Development (CD)/Institution Building

As advocates of change and the transfer of 'technology',ARMDEV's CO/CD assistance centers around enabling individuals and institutions to manage their own development agenda in the spirit of self-reliance and self-determination. Assistance in leadership development (HRD) and organizational development focuses on value-formation and networking techniques for both program and project level-action. Broad-based participatory approaches are viewed by ARMDEV as essential to institutionalization to ensure continuity in the development process and management of change.

ARMDEV strongly recognizes the need for community organization (CO) as a catalyst for national development. It further believes that CO processes, concepts, strategies and techniques provide a collective venue and a powerful potential for enhancing people's dynamic participation, in their own development and the transformation of depressed areas into self-reliant, self-managing communities. Guided by this long-term objective, ARMDEV currently provides community organizers and leaders with relevant knowledge and skills in such key CO areas of concern as:

* Identification and Priority Ranking of Community Needs
* Inventory of Community Resources and Development Potentials
* Community Leadership Training
* Community Skills Training/Appropriate Technology Transfer
* Facilitating Access to Social Services through Networking with GOs and NGOs
* Sectoral and Community-based Project Management
* Management and Evaluation
* Developing, Strengthening and Sustaining People's Organizations
* Institutionalization of Community Networks

1.3 Access to Technical Skills

The Associated Resources for Management and Development, Incorporated has a vast network of consultants in various fields and disciplines in the country's academic institutions and other related units that can be tapped and mobilized whenever necessary. The firm has developed cooperative agreements with various institutions for information exchange, project implementation and technical support.

In the implementation of its community-based and institution building projects, the firm has established close linkages and working relationship with various government and non-government organizations all over the country.

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May 14, 1993

Mr. Thomas J. Nicastro
Deputy Chief of Technical Resources
ASIA/DR/TR Rm. 501 SA-2
U.S. Agency for International Development
Washington, D.C. 20523-0216

Dear Mr. Nicastro:

Enclosed is the Final Report submitted by the Colombo Plan Staff College for Technician Education (CPSC) for the "Corporate Planning Project" under Grant No. 499-0000-G-SS-2093-00. Funds for this project were made available under PD&S (STATE 071821 dated March 7, 1992; and STATE 073090 dated March 9, 1992). The grant was completed on April 30, 1993.

Please let us know if you have questions. Thank you.

Sincerely,

David R. Nelson
Acting Chief
Office of Food for Peace
and Voluntary Cooperation

Enclosure: a/s

-50k to Philippines - grant - for Corp Plan
- this will go to Obey Committee - not Foley's
- submitted to Philippines - David Nelson

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